FILE COPY


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=> fil casreact
FILE 'CASREACT' ENTERED AT 08:41:59 ON 21 APR 2005
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FILE CONTENT:1840 - 17 Apr 2005 VOL 142 ISS 16

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**************************************************************
*                                                            *
*     CASREACT now has more than  8 million reactions        *
*                                                            *
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Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d sta que l6
L1              STR
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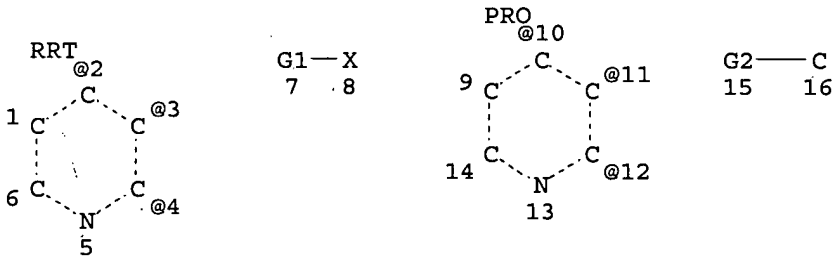


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
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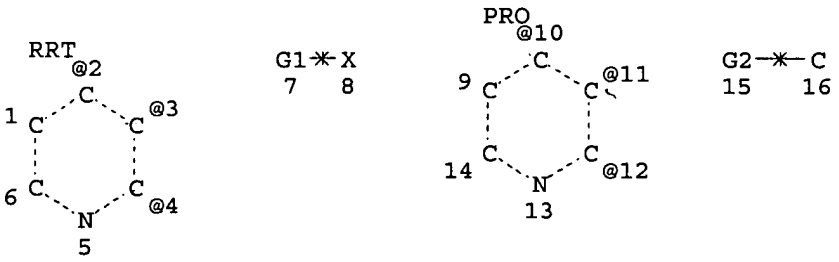

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VAR G1=2/3/4
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NODE ATTRIBUTES:
NSPEC   IS RC     AT  16
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
L5          5208 SEA FILE=CASREACT SSS FUL L1 ( 62854 REACTIONS)
L6          2389 SEA FILE=CASREACT SUB=L5 SSS FUL L3 ( 24843 REACTIONS)

100.0% DONE  62854 VERIFIED   24843 HIT RXNS                  2389 DOCS
SEARCH TIME: 00.00.03


=> d his

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               SET COST OFF

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L3                STR L1
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                  SAV TEMP L5 ZINNA677/A
L6           2389 S L3 FUL SUB=L5
                  SAV TEMP L6 ZINNA677A/A
L7             31 S L6 AND (C OR CARBON?)(L)ELECTROPHIL?
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L11           106 S L6 AND ?CYANAT?
L12             8 S L6 AND OXIRAN?
L13             3 S L9 AND L11,L12
L14             8 S L7 AND L9
L15            10 S L13,L14
L16             9 S L15 NOT ORTHO/TI
                  E MEUDT A/AU
L17            26 S E4
                  E ERBES M/AU
L18             7 S E4
                  E FORSTINGER K/AU
L19            16 S E4
                  E FOERSTINGER K/AU
L20             3 S L17-L19 AND L5
L21             3 S L20 AND L6
L22             1 S L21 AND L7,L9,L11-L16
L23             2 S L21 NOT L22
L24           332 S L6 AND LITH?
L25            10 S L24,L9 AND L11
L26             2 S L24,L9 AND OXIRAN?
L27             8 S L25,L26 NOT L16
L28            19 S L16,L22,L23,L27
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L29 14 S L28 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L30 5 S L28 NOT L29

FILE 'CASREACT' ENTERED AT 08:41:59 ON 21 APR 2005

=> d l29 bib abs fhit retable tot

L29 ANSWER 1 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 138:73075 CASREACT
TI Process for the preparation of substituted aromatics via lithiation and electrophilic alkylation of haloaromatics
IN **Meudt, Andreas**; **Erbes, Michael**; **Forstinger, Klaus**
PA Clariant G.m.b.H., Germany
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1270535	A2	20030102	EP 2002-12763	20020608
EP 1270535	A3	20040218		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
DE 10155209	A1	20030109	DE 2001-10155209	20011109
US 2003018192	A1	20030123	US 2002-171444	20020613
US 6657093	B2	20031202		
JP 2003073308	A2	20030312	JP 2002-180218	20020620
US 2004073032	A1	20040415	US 2003-677412	20031002
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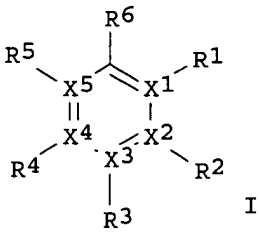
DE 2001-10155209	20011109			
US 2002-171444	20020613			

OS MARPAT 138:73075
GI



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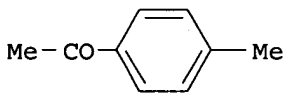
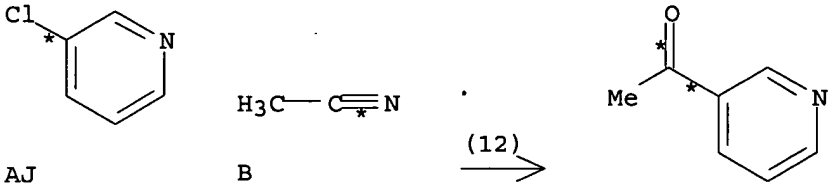


II

AB A process for the preparation of compds. I [R1 - R5 = H, (un)substituted alkyl, alkoxy, etc.; R6 = aryl, alkyl] via the lithiation and **electrophilic** alkylation of haloaroms. I [R1 - R5 = H, (un)substituted alkyl, alkoxy, etc.; R6 = Cl, F] is disclosed. For example, a mixture of p-chlorotoluene (1 mol) and acetonitrile (1.1 mol) was added to a suspension of **lithium** (2.0 mol) in THF (350 mL) at -50.degree.**C.** After stirring for 7.5 h, the reaction was quenched with water, the pH adjusted to 2.0 and the mixture heated at reflux for 2 h. The reaction was cooled, extracted with petroleum ether and the combined organic layers were distilled to provide acetophenone II in 99% yield. The preparation of approx. 12-specific examples of compds. I are disclosed.

RX(12) OF 13 **AJ** + B ===> **AK**



AJ B

AK
YIELD 88%

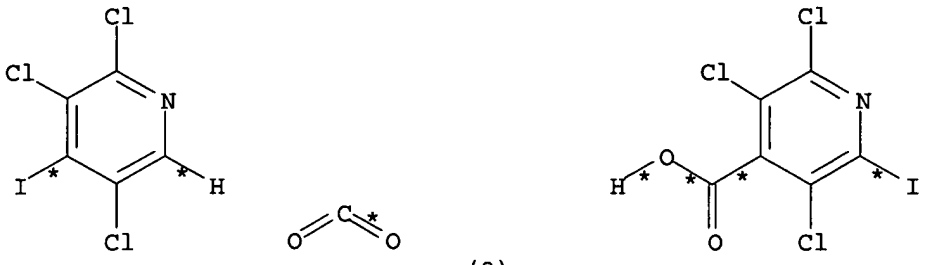
RX(12) RCT AJ **626-60-8**, B 75-05-8

STAGE(1)
RGT D 7439-93-2 Li
SOL 109-99-9 THF

STAGE(2)
RGT E 7647-01-0 HCl
SOL 109-99-9 THF, 7732-18-5 Water
PRO AK **350-03-8**

L29 ANSWER 2 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 136:279303 CASREACT
TI Regiochemical flexibility: the optional functionalization of 2,3,5-trihalopyridines at the 4- or 6-position
AU Bobbio, Carla; Schlosser, Manfred
CS Section de Chimie (BCh), Universite de Lausanne, Lausanne, 1015, Switz.
SO European Journal of Organic Chemistry (**2001**), (23), 4533-4536
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB A deprotonation study was performed using 2,3,5-trichloropyridine, 3,5-dichloro-2-fluoropyridine, and 5-chloro-2,3-difluoropyridine as the substrates. Upon reaction with **lithium** diisopropylamide (LDA), deprotonation occurred exclusively at the 4-position. Subsequent carboxylation and iodination led to the acids and 4-iodopyridines. The exposure of the latter compds. to **lithium** 2,2,6,6-tetramethylpiperidide (LITMP) caused deprotonation and immediately ensuing iodine migration. The intermediates were trapped with dry ice to afford the carboxylic acids. Upon neutralization, the 6-iodopyridines were obtained. These compds. readily exchanged the heavy halogen for metal when treated with isopropylmagnesium chloride. In this way, functional groups could be selectively introduced in the 6-position. Employing **carbon** dioxide routinely as the model **electrophile**, trihalopyridinecarboxylic acids were formed which, all unknown so far, should provide valuable new building blocks for pharmaceutical research. Moreover, the selective nucleophilic displacement of the halogen at the 2-position could give rise to an immense variety of new structures.

RX(8) OF 33 ...**N** + **E** ===> **R**



N E (8) R
YIELD 52%

RX(8) RCT N **406676-23-1**

STAGE(1)
RGT S 768-66-1 Me4-piperidine, T 109-72-8 BuLi
SOL 109-99-9 THF

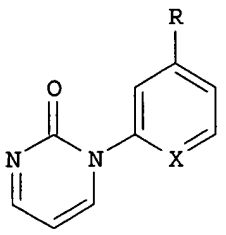
STAGE(2)
RCT E 124-38-9

STAGE(3)
RGT H 7647-01-0 HCl
SOL 7732-18-5 Water
PRO R **406676-28-6**
NTE regioselective, in-situ generated reagent

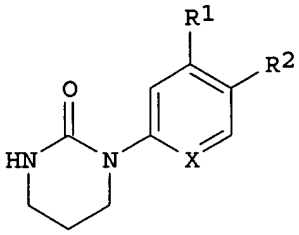
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Finger, G	1963	28	1666	J Org Chem	CAPLUS
Kumai, S	1990			JP 04164068	CAPLUS
Mallet, M	1982	38	3035	Tetrahedron	CAPLUS
Marzi, E	2001		1371	Eur J Org Chem	CAPLUS
Marzi, E	2001		2771	Eur J Org Chem	
Metzger, H	1959	112	337	Houben-Weyl: Methode	
Mongin, F	1996	37	2767	Tetrahedron Lett	CAPLUS
Mongin, F	1998	39	1749	Tetrahedron Lett	CAPLUS
Schach, T	1996			US 5498807	CAPLUS
Venugopal, B	1996			EP 710649	CAPLUS
Ziegler, K	1929	473	1	Justus Liebigs Ann C	CAPLUS

L29 ANSWER 3 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 136:134729 CASREACT
TI Cyclic ureas as ortho directing substituents
AU Meigh, Jon-Paul; Alvarez, Mercedes; Joule, John A.
CS Chemistry Department, The University of Manchester, Manchester, M13 9PL, UK
SO Journal of the Chemical Society, Perkin Transactions 1 (**2001**), (17), 2012-2021
CODEN: JCSPCE; ISSN: 1472-7781
PB Royal Society of Chemistry
DT Journal
LA English
GI



I



II

AB Six-membered cyclic ureas are shown to have a weak ortho directing ability when linked through nitrogen to benzene and pyridine rings. Aryl dihydropyrimidinones I (R = H, MeO; X = CH, N) were prepared; under **lithiation** conditions, reaction of I (R = MeO; X = CH) with tert-butyllithium gave the product of addition to the pyrimidinone ring rather than products derived from **lithiation** of the aryl ring. Aryl hexahydropyrimidinones II (R1 = H, MeO, Cl; R2 = H, MeO; X = CH, N) were prepared in two steps from the aryl amines by treatment with 3-chloropropyl **isocyanate** and cyclization of the chloropropyl urea with potassium t-butoxide. Methoxyphenyl hexahydropyrimidinone II (R1 = MeO; R2 = H; X = CH) underwent regioselective **lithiation** between the methoxy group and the cyclic urea moiety followed by alkylation or addition reactions with Me iodide, trimethylsilyl chloride, pivaldehyde, and benzoyl chloride; **lithiation** of II (R1 = H; R2 = MeO; X = CH) under the same conditions followed by trapping with trimethylsilyl chloride gave a regioisomeric mixture derived from **lithiation** ortho to either the methoxy or the cyclic urea moieties. Methoxypyridinyl hexahydropyrimidinone II (R1 = MeO; R1 = H; X = N) was methylated regioselectively at the pyridine ring by treatment with one equivalent of butyllithium, one equivalent of trimethylsilyl chloride, and treatment with a second equivalent of butyllithium followed by Me iodide; without trimethylsilylation of the urea moiety, the pyridine ring underwent addition of butyllithium rather than **lithiation.** Under certain conditions, cyclic ureas can have comparable directing effects to methoxy groups.

RX(26) OF 56 COMPOSED OF RX(2), RX(3)
RX(26) **E** ===> **J**

E

2 STEPS

J
YIELD 51%

RX(2) RCT E **98-98-6**

STAGE(1)
RGT G 7719-09-7 SOCl2, H 7647-15-6 NaBr

STAGE(2)
RGT C 7664-41-7 NH3
SOL 109-99-9 THF
PRO F 99586-65-9

RX(3) RCT F 99586-65-9

STAGE(1)
RGT K 1310-58-3 KOH, L 7726-95-6 Br2
SOL 7732-18-5 Water, 123-91-1 Dioxane

STAGE(2)
RGT M 64-19-7 AcOH
PRO J **19798-80-2**

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Abramovitch, R	1988	44	3039	Tetrahedron	CAPLUS
Alvarez, M	1999		249	J Chem Soc, Perkin T	CAPLUS
Alvarez, M	1999		615	Synthesis	CAPLUS
Alvarez, M	2001	42	315	Tetrahedron Lett	CAPLUS
Anderson, D	1999	121	7553	J Am Chem Soc	CAPLUS
Anon				http://www.chem.quee	
Artz, S	1984	106	2160	J Am Chem Soc	CAPLUS
Brown, D	1968	21	243	Aust J Chem	CAPLUS
Brown, D	1950	165	1010	Nature	CAPLUS
Chan, D	1996	37	9013	Tetrahedron Lett	CAPLUS
Farbenfabriken Bayer A-	1962			DE 1126392	CAPLUS
Finet, J	1989	89	1487	Chem Rev	CAPLUS
Gerchuk, M	1950	20	910	Zh Org Khim	CAPLUS
Godard, A	1988	354	273	Organometal Chem	CAPLUS
Gschwend, H	1979	26	1	Org React	CAPLUS
Hassel, T	1979	18	399	Angew Chem, Int Ed E	
Iwakura, Y	1966	31	1651	J Org Chem	CAPLUS
Karady, S	1979	12	815	Heterocycles	CAPLUS
Kurtzer, F	1963	4	49	Org Synth	
Nishimoto, N	1962	82	1267	Yakugaku Zasshi	CAPLUS
Nishio, T	1981		943	J Chem Soc, Perkin T	CAPLUS
Nolte, R	1984	106	1416	J Am Chem Soc	CAPLUS
Perrin, D	1980			Purification of labo	
Perry, N	1994	50	3987	Tetrahedron	CAPLUS
Queguiner, G	1991	52	187	Adv Heterocycl Chem	CAPLUS
Smith, K	1999		2305	J Chem Soc, Perkin T	CAPLUS
Snieckus, V	1990	90	879	Chem Rev	CAPLUS
Still, C	1978	43	2923	J Org Chem	
Sundberg, R	1997	29	117	Org Prep Proced Int	CAPLUS
Swan, G	1974		885	J Chem Soc, Perkin T	CAPLUS
Thavonekham, B	1997		1189	Synthesis	CAPLUS
Trimurtulu, G	1994	50	3993	Tetrahedron	CAPLUS
Undheim, K	1990	30	1155	Heterocycles	CAPLUS
Varlet, D	2000	53	797	Heterocycles	CAPLUS
Wachi, K	1980	28	465	Chem Pharm Bull	CAPLUS
Watson, S	1967	9	165	J Organomet Chem	CAPLUS

L29 ANSWER 4 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 135:331353 CASREACT
TI Synthesis of intermediates useful in preparing tricyclic compounds
IN Poirier, Marc; Wong, Yee-shing; Wu, George G.
PA Schering Corp., USA
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 2001079175	A1	20011025	WO 2001-US12494	20010417
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2406384	AA	20011025	CA 2001-2406384	20010417
	US 2002035261	A1	20020321	US 2001-836605	20010417
	US 6492519	B2	20021210		
	EP 1274688	A1	20030115	EP 2001-927122	20010417
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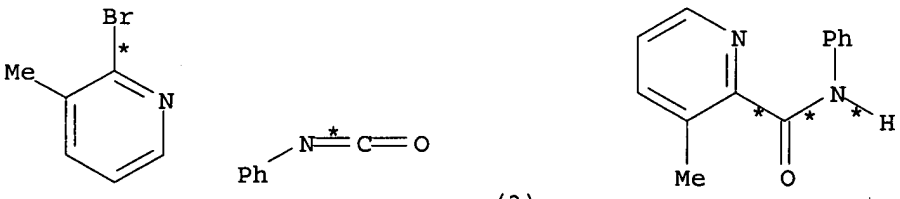
	JP 2004501081	T2	20040115	JP 2001-576776	20010417
	US 2003050319	A1	20030313	US 2002-174145	20020618
	US 6750347	B2	20040615		
PRAI	US 2000-198341P	20000418			
	US 2001-836605	20010417			
	WO 2001-US12494	20010417			
OS	MARPAT 135:331353				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A process is provided for preparing the title compds. [I; R = H, Cl] comprising: (a) reacting II [M = **Li**, Na, K, MgX, ZnRA, and Al(RA)2; RA = alkyl; X = halo] with an **isocyanate** R1NCO [R1 = alkyl, aryl, aralkyl, etc.] to produce III; (b) optionally hydrolyzing III to form an amide IV; (c) reacting III or IV with a compound V [L = a leaving group] in the presence of a strong base to produce VI; and (d) cyclizing VI to obtain the compound I. Also provided is a process for preparing a compound VII comprising reacting II with CO2 and a protonating agent.

RX(3) OF 7 **O** + P ===> **I**...



O P I

YIELD 88%

RX(3) RCT O **3430-17-9**

STAGE(1)
RGT K 109-72-8 BuLi
SOL 110-71-4 (CH2OMe)2, 109-99-9 THF

STAGE(2)
RCT P 103-71-9

STAGE(3)
RGT L 12125-02-9 NH4Cl
SOL 7732-18-5 Water
PRO I **24691-94-9**

RETABLE

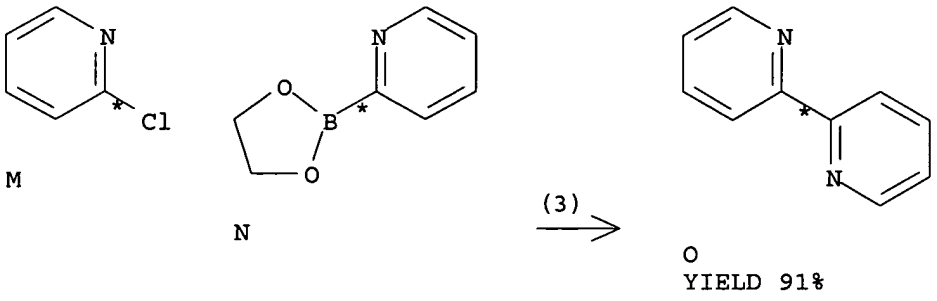
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Birkenmeyer, R	1984	27	216	JOURNAL OF MEDICINAL	CAPLUS
Schering Corp	1998			WO 9842676 A	CAPLUS
Schering Corp	2000			WO 0030589 A	CAPLUS
Schickaneder Helmut	2000			WO 0005215 A	CAPLUS

L29 ANSWER 5 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 134:86165 CASREACT
TI Method for producing biaryls using palladaphosphacyclobutane catalysis
IN Geissler, Holger; Haber, Steffen; **Meudt, Andreas**; Vollmuller, Frank; Scherer, Stefan
PA Clariant G.m.b.H., Germany
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004076	A1	20010118	WO 2000-EP6435	20000707
	W: BR, CA, CN, IL, JP, KR, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19932571	A1	20010118	DE 1999-19932571	19990713
	EP 1200373	A1	20020502	EP 2000-947945	20000707
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	US 6392047	B1	20020521	US 2000-615486	20000713
PRAI	DE 1999-19932571	19990713			
	WO 2000-EP6435	20000707			

AB Biaryls, e.g., biphenyls, phenylpyridines, phenylfurans, phenylpyrroles, phenylthiophenes, bipyridines, pyridylfurans or pyridylpyrroles, are produced in high yields by coupling aromatic compds. with an aromatic boronic acid or boronic acid ester in the presence of a palladaphosphacyclobutane catalyst. Thus, a mixture of 50 mmol 2-chloropyridine, 50 mmol 2-pyridylboronic acid glycol ester, 25 mmol LiCl, 50 mmol KOH, 1 mmol Bu4NCl, and 0.05 mmol trans-di-μ-acetatobis[2-[bis(1,1-dimethylethyl)phosphino]-2-methylpropyl-C,P]dipalladium in 150 mL THF was refluxed 5 h to give a 91% yield of 2,2'-bipyridine.

RX(3) OF 3 **M** + N ===> **O**



RX(3) RCT M **109-09-1**, N 317810-27-8
RGT P 1310-58-3 KOH, E 7447-41-8 LiCl
PRO O **366-18-7**
CAT 207843-95-6 Palladium, bis[μ-(acetato-κO:κO')]bis[2-[bis(1,1-dimethylethyl)phosphino-κP]-2-methylpropyl-κC]di-, stereoisomer, 1112-67-0 Bu4NCl
SOL 142-96-1 Bu2O

RETABLE

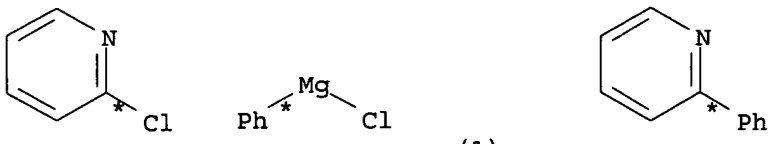
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Hoechst	1996			EP 0690046 A	CAPLUS
Hoechst	1998			DE 19647582 A	CAPLUS
Hoechst	1998			DE 19647584 A	CAPLUS

L29 ANSWER 6 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 132:78471 CASREACT
TI Procedure for the production of arylpyridines
IN Noerenberg, Antje; Haber, Steffen; **Meudt, Andreas**
PA Clariant G.m.b.H., Germany
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19831246	A1	20000113	DE 1998-19831246	19980711
EP 972765	A1	20000119	EP 1999-112438	19990630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6248892	B1	20010619	US 1999-346429	19990701
JP 2000204076	A2	20000725	JP 1999-198154	19990712

PRAI DE 1998-19831246 19980711
OS MARPAT 132:78471
AB Arylpyridines are prepared by Grignard reaction of halopyridines with arylmagnesium halides in presence of a phosphinoferrocenepalladium catalyst. Thus, 2-chloropyridine was treated with PhMgCl in presence of 1,1'-bis(diphenylphosphino)ferrocenepalladium dichloride at 50° to give 98.1% 2-phenylpyridine.

RX(1) OF 1 **A** + B ===> **C**



A B C
YIELD 98%

RX(1) RCT A **109-09-1**

STAGE(1)
CAT 72287-26-4 Palladium, [1,1'-bis(diphenylphosphino-κP)ferrocene]dichloro-, (SP-4-2)-
SOL 109-99-9 THF

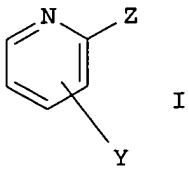
STAGE(2)
RCT B 100-59-4
SOL 109-99-9 THF

STAGE(3)
RGT D 7732-18-5 Water
PRO C **1008-89-5**
NTE claimed reaction

L29 ANSWER 7 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 131:322543 CASREACT
TI Preparation of 2-substituted pyridines via lithiation and electrophilic substitution
IN Kelly, Martha Jean; Weaver, Damian Gerard
PA Rohm and Haas Company, USA
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 955291	A1	19991110	EP 1999-303341	19990428
	EP 955291	B1	20020710		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CN 1238331	A	19991215	CN 1999-105986	19990426
	CN 1114593	B	20030716		
	IL 129596	A1	20031031	IL 1999-129596	19990426
	AU 9925003	A1	19991118	AU 1999-25003	19990429
	AU 748410	B2	20020606		
	US 6054583	A	20000425	US 1999-305410	19990505
	BR 9901985	A	20000502	BR 1999-1985	19990507
	JP 11335353	A2	19991207	JP 1999-128401	19990510
PRAI	US 1998-84685P		19980508		

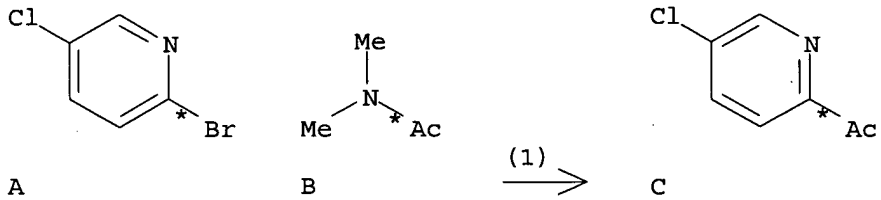
OS MARPAT 131:322543
GI



I

AB 2-Substituted pyridines (I; Y = a group that is not reactive with the **lithium** compds. under reaction conditions; Z = electrophile residue) are prepared in high yield via a metal-halogen exchange with sec-Bu **lithium** on optionally substituted 2-bromo or 2-iodopyridines and the resulting 2-lithopyridine intermediate is then reacted with an electrophile to provide I. Thus, sec-Bu **lithium** was reacted with 2-bromo-5-chloropyridine and the lithiated intermediate reacted with N,N-dimethylacetamide to produce 2-acetyl-5-chloropyridine in 65% yield.

RX(1) OF 1 **A** + B ===> **C**



A B C

YIELD 65%

RX(1) RCT A **40473-01-6**

STAGE(1)
SOL 60-29-7 Et2O

STAGE(2)
RGT D 598-30-1 s-BuLi
SOL 110-82-7 Cyclohexane

STAGE(3)
RCT B 127-19-5
SOL 60-29-7 Et2O

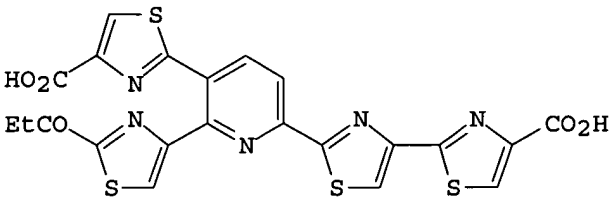
PRO C **94952-46-2**

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Dongwei, C	1996	37	2537	TETRAHEDRON LETTERS	
Gilman, H	1951	16	1788	JOURNAL OF ORGANIC C	CAPLUS
Reitz, D	1997			US 5602153 A	
Sandoz AG	1995			EP 0683156 A	CAPLUS

L29 ANSWER 8 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 115:256617 CASREACT
TI Synthesis of micrococcinic acid
AU Kelly, T. Ross; Jagoe, Christopher T.; Gu, Zhengxiang
CS Dep. Chem., Boston Coll., Chestnut Hill, MA, 02167, USA
SO Tetrahedron Letters (**1991**), 32(34), 4263-6
CODEN: TELEAY; ISSN: 0040-4039

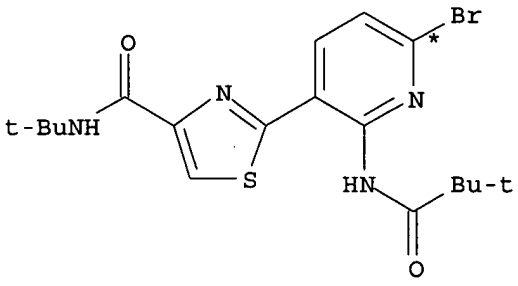
DT Journal
LA English
GI



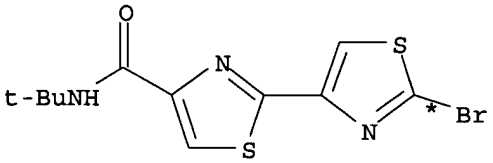
I

AB The first synthesis of micrococcinic acid (I) is described. The 5 rings of I are assembled from monocyclic precursors using 4 palladium-catalyzed biaryl coupling reactions.

RX(13) OF 338 ...**AA** + AC ===> **AD**

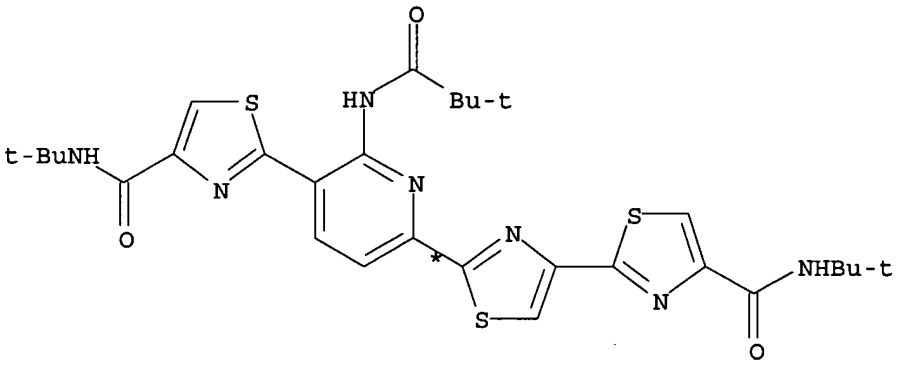


AA



AC

(13)

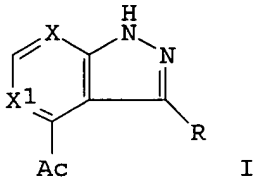


AD
YIELD 49%

RX(13) RCT AA **137310-09-9**, AC 137337-78-1

RGT T 661-69-8 Me3SnSnMe3
PRO AD **137310-10-2**
CAT 13965-03-2 PdCl2(PPh3)2
NTE key step

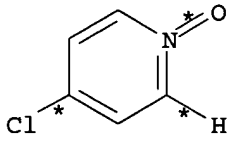
L29 ANSWER 9 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 112:198209 CASREACT
TI Synthesis of 3-aryl-4-acetyl-1H-pyrazolo[3,4-b]pyridines and 3-aryl-4-acetyl-1H-pyrazolo[4,3-c]pyridines
AU Bisagni, Emile; Rautureau, Marilys; Huel, Christiane
CS Lab. Synth. Org., Inst. Curie, Orsay, 91405, Fr.
SO Heterocycles (**1989**), 29(9), 1815-24
CODEN: HTCYAM; ISSN: 0385-5414
DT Journal
LA English
GI



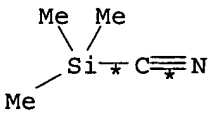
I

AB 4-Acetyl-2-chloro-3-**lithiopyridine** ethylene glycol ketal and 2-acetyl-4-chloro-3-**lithiopyridine** ethylene glycol ketal were reacted with aromatic aldehydes. Oxidation of the resulting alcs. provided the corresponding 3-aroylpyridines. These intermediates were transformed by N2H4 to 4-acetyl-3-aryl-1H-pyrazolo[3,4-b]- and -[4,3-c]pyridine ethylene glycol ketals, which afforded the title compds. I [X = N, X1 = CH; X = CH, X1 = N; R = 2,5-(MeO)2C6H3, 3,4,5-(MeO)3C6H2, 4-pyridyl], resp., by acid hydrolysis.

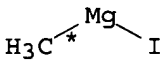
RX(110) OF 133 COMPOSED OF RX(1), RX(4), RX(5), RX(9), RX(15), RX(21)
RX(110) **A** + B + K + N + S ===> **AS**



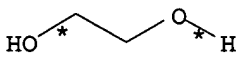
A



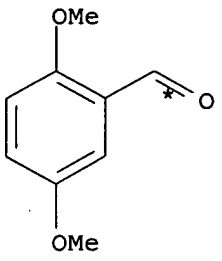
B



K

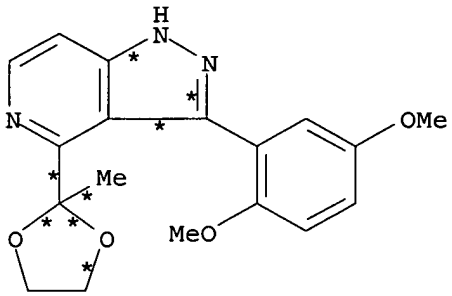


N



6
STEPS

S



AS
YIELD 62%

RX(1) RCT A **1121-76-2**, B 7677-24-9

STAGE(1)
SOL 75-09-2 CH2Cl2

STAGE(2)
RGT D 79-44-7 Me2NCOCl
PRO C 19235-89-3

RX(4) RCT C 19235-89-3, K 917-64-6
PRO L 60159-37-7
SOL 60-29-7 Et2O

RX(5) RCT L 60159-37-7, N 107-21-1
RGT P 104-15-4 TsOH
PRO O 126866-46-4
SOL 71-43-2 Benzene

RX(9) RCT O 126866-46-4

STAGE(1)
RGT U 4111-54-0 LiN(Pr-i)2
SOL 109-99-9 THF, 110-54-3 Hexane

STAGE(2)
RCT S 93-02-7
SOL 109-99-9 THF
PRO AB 126866-49-7

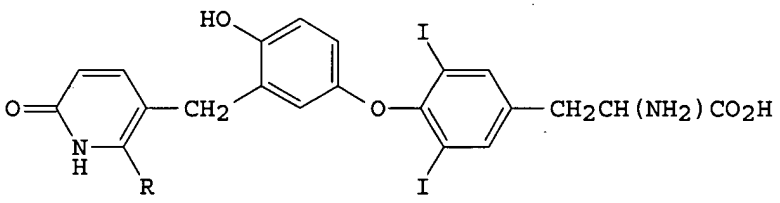
RX(15) RCT AB 126866-49-7

STAGE(1)
RGT AG 67-68-5 DMSO, AF 79-37-8 (COCl)2
SOL 75-09-2 CH2Cl2

STAGE(2)
RGT AH 121-44-8 Et3N
PRO AK 126866-55-5

RX(21) RCT AK 126866-55-5
RGT AP 302-01-2 N2H4
PRO AS **126866-61-3**

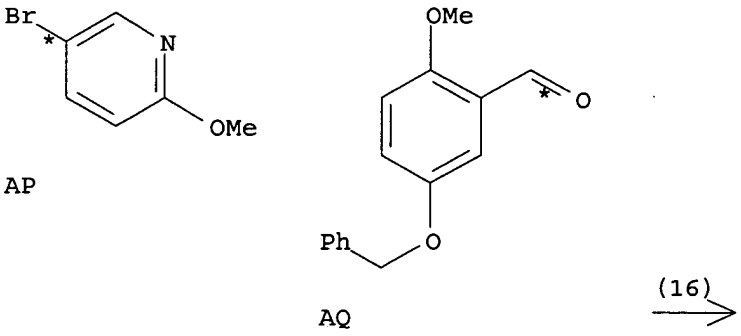
L29 ANSWER 10 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 110:173720 CASREACT
TI Synthesis of thyroid hormone analogs. Part 1. Preparation of 3'-heteroarylmethyl-3,5-diiodo-L-thyronines via phenol-dinitrophenol condensation and relationships between structure and selective thyromimetic activity
AU Leeson, Paul D.; Emmett, John C.
CS Smith Kline and French Res. Ltd., Welwyn/Hertfordshire, AL6 9AR, UK
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (**1988**), (12), 3085-96
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English
GI



I

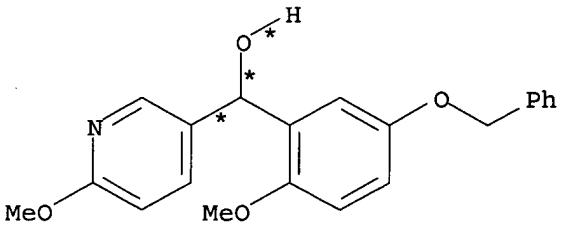
AB 3'-Heteroarylmethyl analogs, e.g. I (R = H, F), of the natural thyroid hormone 3,3',5-triiodo-L-thyronine (T3) were synthesized as potential selective (cardiac-sparing) thyromimetics. The di-Ph ether moiety was constructed by condensation of 3-substituted 4-methoxyphenols with a 3,5-dinitro-L-tyrosine derivative Synthesis of the key phenols required the in situ preparation, at low temps., of novel metalated species, e.g. 2-**lithio**-5-methoxypyridine, and 2,6-difluoro-3-**lithiopyridine**, followed by reaction with 2,4-MeO(PhCH2O)C6H3CHO. Structure-activity relationships indicate that selective thyromimetic activity is associated with 2-oxyheteroaren-5-ylmethyl 3'-substitution, as found in the pyridone I (R = H). The location of the oxy substituent in the heterocycle is critical for both hormonal activity and for binding to the T3 receptor.

RX(16) OF 216 **AP** + AQ ===> **AB**...



AP

AQ



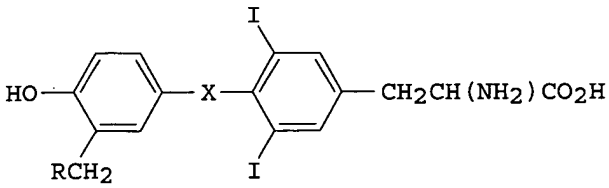
AB
YIELD 72%

RX(16) RCT AP **13472-85-0**

STAGE(1)
RGT AR 109-72-8 BuLi
SOL 110-54-3 Hexane, 109-99-9 THF

STAGE(2)
RCT AQ 52329-06-3
SOL 109-99-9 THF
PRO AB **105211-18-5**

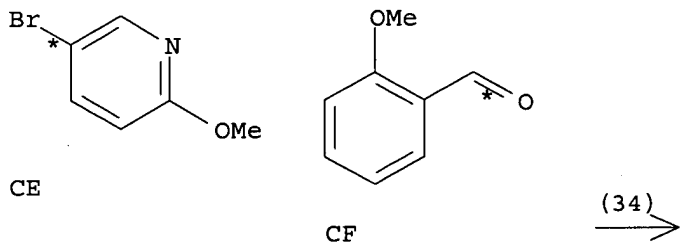
L29 ANSWER 11 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 110:115292 CASREACT
TI Selective thyromimetics. Cardiac-sparing thyroid hormone analogs containing 3'-arylmethyl substituents
AU Leeson, Paul D.; Emmett, John C.; Shah, Virendra P.; Showell, Graham A.; Novelli, Ricardo; Prain, H. Douglas; Benson, Martin G.; Ellis, David; Pearce, Nigel J.; Underwood, Anthony H.
CS Smith Kline French Res. Ltd., Frythe/Welwyn, AL6 9AR, UK
SO Journal of Medicinal Chemistry (**1989**), 32(2), 320-36
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
GI



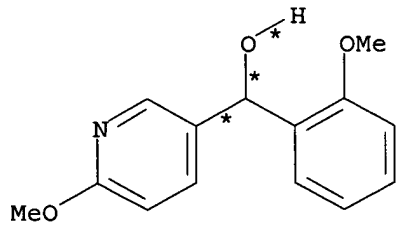
I

AB Introduction of specific arylmethyl groups at the 3'-position of the thyroid hormone 3,3',5'-triiodo-L-thyronine (T3), and its known hormonally active derivs., gives liver-selective, cardiac-sparing thyromimetics (e.g., I, X = O, S; R = aryl group), with potential utility as plasma cholesterol lowering agents. Correlations between in vivo and in vitro receptor binding affinities show that liver/heart selectivity does not depend on receptor recognition but on penetration or access to receptors in vivo. QSAR studies of the binding data of a series of 20 3'-arylmethyl T3 analogs show that electroneg. groups at the para position increase both receptor binding and selectivity in vivo. However, increasing 3'-arylmethyl hydrophobicity increases receptor binding but reduces selectivity. Substitution at ortho and meta positions reduces both binding and selectivity. Replacement of the 3,5-iodo groups by halogen or Me maintains selectivity, with 3,5-dibromo analogs in particular having increased potency combined with oral bioavailability. Di-Ph thioether derivs. also have improved potency but are less orally active. At the 1-position, the D enantiomer retains selectivity, but removal of the α-amino to give a propionic acid results in loss of selective thyromimetic activity.

RX(34) OF 318 **CE** + CF ===> **CG**



CE CF (34)



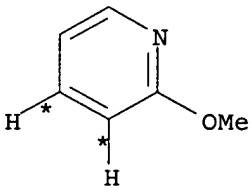
CG
YIELD 63%

RX(34) RCT CE **13472-85-0**, CF 135-02-4
RGT CH 109-72-8 BuLi
PRO CG **105189-38-6**

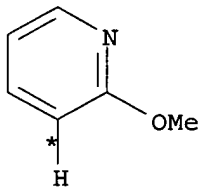
SOL 109-99-9 THF

L29 ANSWER 12 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 108:150267 CASREACT
TI Catalyzed metalation applied to 2-methoxypyridine
AU Trecourt, F.; Mallet, M.; Marsais, F.; Queguiner, G.
CS Lab. Chim. Org. Fine Heterocycl., INSA ROUEN, Mont Saint Aignan, 76130, Fr.
SO Journal of Organic Chemistry (**1988**), 53(7), 1367-71
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB Treatment of 2-methoxypyridine (I) with MeLi and a catalytic amount of (Me2CH)2NH gives the 3-**lithio** derivative of I (II) regioselectively. II reacts with a variety of electrophiles (e.g., ketones or alkyl halides) to give 20-70% addition or substitution products. The catalytic role of (Me2CH)2NH is discussed.

RX(21) OF 29 3 A ===> **AQ** + **AN** + AR

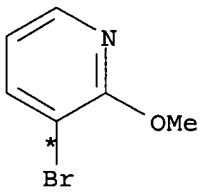


A

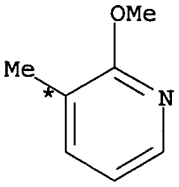


2 A

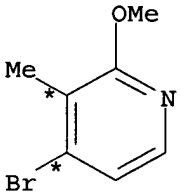
(21)



AQ
YIELD 15%



AN
YIELD 30%



AR

RX(21) RCT A 1628-89-3

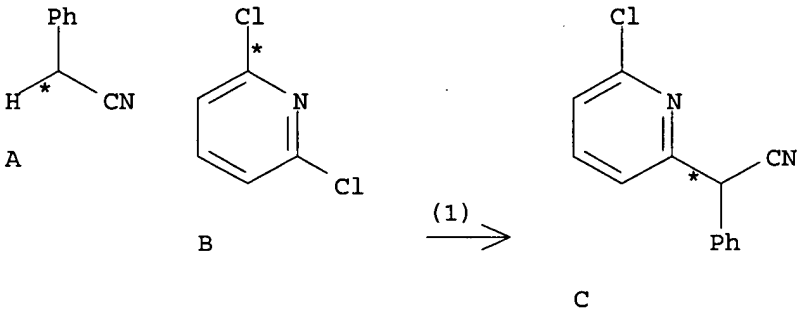
STAGE(1)
RGT J 917-54-4 MeLi
CAT 108-18-9 i-Pr2NH
SOL 109-99-9 THF, 60-29-7 Et2O

STAGE(2)
RGT AS 7726-95-6 Br2
PRO AQ **13472-59-8**, AN **19230-59-2**, AR 112197-12-3

L29 ANSWER 13 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 108:37604 CASREACT

TI A new synthesis of aryl hetaryl ketones via SRN1 reactions of halogenated heterocycles with potassiophenylacetonitrile followed by phase-transfer catalyzed **decyanation**
AU Hermann, Christine K. F.; Sachdeva, Yesh P.; Wolfe, James F.
CS Dep. Chem., Virginia Polytech. Inst. and State Univ., Blacksburg, VA, 24061, USA
SO Journal of Heterocyclic Chemistry (**1987**), 24(4), 1061-5
CODEN: JHTCAD; ISSN: 0022-152X
DT Journal
LA English
AB Thirteen ketones e.g. RCOPh (R = Ph, 2-pyridinyl, 4-pyridinyl, 2-quinolyl, 2-pyrazinyl, 2-pyrimidinyl) were prepared in 2 steps from PhCH2CN and RCl or RBr (same R). Thus, PhCH2CN was treated with K in liquid NH3 to give Ph(NC)CH-K+ which underwent photostimulated radical substitution with 2-bromopyridine to give 76% RCH(CN)Ph (R = 2-pyridinyl) (I). Oxidative **decyanation** of I with air in the presence of NaOH and PhCH2Et3N+ Cl- gave 99% RCOPh (R = 2-pyridinyl).

RX(1) OF 33 A + **B** ===> **C**...

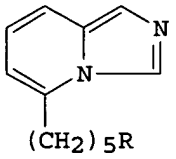


RX(1) RCT A 140-29-4

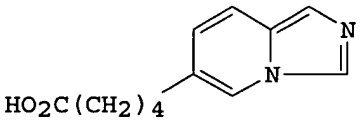
STAGE(1)
RGT D 7440-09-7 K
CAT 10421-48-4 Fe(NO3)3
SOL 7664-41-7 NH3

STAGE(2)
RCT B **2402-78-0**
SOL 7664-41-7 NH3, 60-29-7 Et2O
PRO C **24783-42-4**

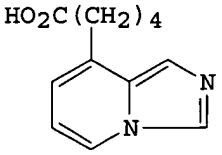
L29 ANSWER 14 OF 14 CASREACT COPYRIGHT 2005 ACS on STN
AN 102:78775 CASREACT
TI Imidazo[1,5-a]pyridines: a new class of thromboxane A2 synthetase inhibitors
AU Ford, Neville F.; Browne, Leslie J.; Campbell, Thomas; Gemenden, Charles; Goldstein, Robert; Gude, Candido; Wasley, Jan W. F.
CS Res. Dep., Ciba-Geigy Corp., Summit, NJ, 07901, USA
SO Journal of Medicinal Chemistry (**1985**), 28(2), 164-70
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
GI



I



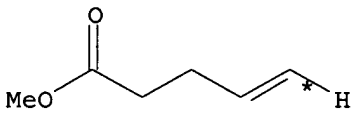
II



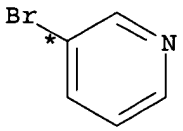
III

AB The synthesis and structure-activity profile of potent and highly specific thromboxane A2 synthetase inhibiting substituted imidazo[1,5-a]pyridines, e.g. I (R = CO2H, CH2OH, 1H-tetrazol-5-yl, CONHMe), II, and III, is described. Thus, II was prepared from 3-bromopyridine in 7 steps via Me 5-(2-cyano-5-pyridyl)pentanoate.

RX(2) OF 125 G + **H** ===> **I**...

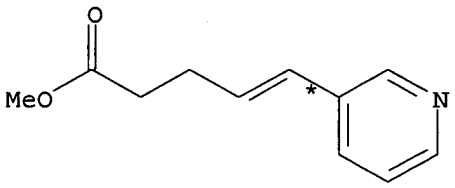


G



H

(2) →



I

RX(2) . RCT G 818-57-5, H **626-55-1**
RGT J 6163-58-2 Tri-o-tolylphosphine
PRO I **85691-49-2**
CAT 3375-31-3 Pd(OAc)2
SOL 121-44-8 Et3N, 7440-37-1 Ar

=>

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 14:36:00 ON 21 APR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   20 APR 2005  HIGHEST RN 848887-73-0
DICTIONARY FILE UPDATES:  20 APR 2005  HIGHEST RN 848887-73-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d sta que l88
L74             STR

G1—CN
 1   2


VAR G1=AK/CY
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   2

STEREO ATTRIBUTES: NONE
L76             SCR 1243
L80             SCR 2039 OR 2127 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 O
R 2051 OR 2043 OR 2054 OR 1918
L84             STR

G1—CN       Cb @3
 1   2


VAR G1=AK/3
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
```

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L85 SCR 1993 OR 2004 OR 2021 OR 2026
L88 2691 SEA FILE=REGISTRY CSS FUL L84 AND L74 AND L76 NOT (L85 OR L80)

100.0% PROCESSED 18962 ITERATIONS 2691 ANSWERS
SEARCH TIME: 00.00.01

=> d l94 ide can

L94 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 75-21-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN **Oxirane (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ethylene oxide (8CI)
CN Ethyleneoxy (6CI)
OTHER NAMES:
CN 1,2-Epoxyethane
CN 12/88
CN Ciba-Geigy 9138
CN Dihydrooxirene
CN Dimethylene oxide
CN Epoxyethane
CN Ethene oxide
CN Ethylene oxide-ionene copolymer
CN ETO
CN Mirror Ox
CN Oxacyclopropane
CN Oxane
CN Oxidoethane
CN Oxirene, dihydro-
CN Oxyfume
CN Oxyfume 12
CN Oxyfume 2002
CN T-Gas
FS 3D CONCORD
DR 19034-08-3, 37341-05-2, 142175-32-4, 99932-75-9, 184288-32-2, 436859-78-8
MF C2 H4 O
CI COM, RPS
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

19539 REFERENCES IN FILE CA (1907 TO DATE)
3820 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
19558 REFERENCES IN FILE CAPLUS (1907 TO DATE)
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 142:325046

REFERENCE 2: 142:319481

REFERENCE 3: 142:318483

REFERENCE 4: 142:317758

REFERENCE 5: 142:316868

REFERENCE 6: 142:303706

REFERENCE 7: 142:303480

REFERENCE 8: 142:303194

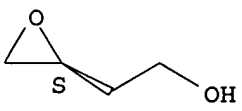
REFERENCE 9: 142:298755

REFERENCE 10: 142:298617

=> d l98 ide can tot

L98 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
RN 95404-59-4 REGISTRY
ED Entered STN: 23 Mar 1985
CN **Oxiraneethanol, (2S)- (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Oxiraneethanol, (S)-**
OTHER NAMES:
CN (S)-3,4-Epoxy-1-butanol
FS STEREOSEARCH
MF **C4 H8 O2**
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:153382

REFERENCE 2: 134:17351

REFERENCE 3: 130:267258

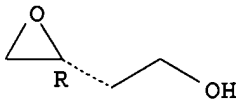
REFERENCE 4: 116:37954

REFERENCE 5: 111:97002

REFERENCE 6: 102:203774

L98 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
RN 76282-48-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN **Oxiraneethanol, (2R)- (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Oxiraneethanol, (R)-**
OTHER NAMES:
CN (R)-3,4-Epoxy-1-butanol
CN **(R)-Oxiraneethanol**
FS STEREOSEARCH
MF **C4 H8 O2**
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

21 REFERENCES IN FILE CA (1907 TO DATE)
21 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:4950

REFERENCE 2: 138:153382

REFERENCE 3: 131:44578

REFERENCE 4: 130:139213

REFERENCE 5: 117:150813

REFERENCE 6: 117:111328

REFERENCE 7: 113:190742

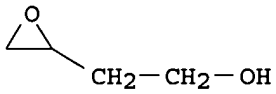
REFERENCE 8: 111:97002

REFERENCE 9: 110:231330

REFERENCE 10: 109:38075

L98 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
RN 19098-31-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN **Oxiraneethanol (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Butanol, 3,4-epoxy- (6CI, 7CI, 8CI)
OTHER NAMES:

CN (2-Hydroxyethyl)oxirane
CN 3,4-Epoxy-1-butanol
CN 3,4-Epoxybutanol
CN 4-Hydroxy-1,2-epoxybutane
FS 3D CONCORD
DR 84985-50-2
MF **C4 H8 O2**
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

45 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
45 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:395806

REFERENCE 2: 139:69105

REFERENCE 3: 138:221050

REFERENCE 4: 137:279595

REFERENCE 5: 134:366805

REFERENCE 6: 133:297149

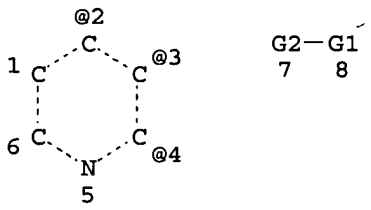
REFERENCE 7: 133:165237

REFERENCE 8: 131:243169

REFERENCE 9: 131:44578

REFERENCE 10: 129:148993

=> => d l72
L72 HAS NO ANSWERS
L72 STR



VAR G1=X/C/CY
VAR G2=2/3/4
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM

```
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   8

STEREO ATTRIBUTES: NONE


=> d his

     (FILE 'HOME' ENTERED AT 13:18:42 ON 21 APR 2005)
                SET COST OFF

     FILE 'CASREACT' ENTERED AT 13:18:53 ON 21 APR 2005
                ACT ZINNA677/A
               ---------
L1              STR
L2           5208 SEA FILE=CASREACT SSS FUL L1 ( 62854 REACTIONS)
               ---------
                ACT ZINNA677A/A
               ---------
L3              STR
L4              STR
L5   (      5208)SEA FILE=CASREACT SSS FUL L3 ( 62854 REACTIONS)
L6           2389 SEA FILE=CASREACT SUB=L5 SSS FUL L4 ( 24843 REACTIONS)
               ---------

     FILE 'REGISTRY' ENTERED AT 13:19:44 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:19:51 ON 21 APR 2005
                SET SMARTSELECT ON
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:19:52 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:19:58 ON 21 APR 2005
                SET SMARTSELECT ON
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:20:00 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:20:11 ON 21 APR 2005
                SET SMARTSELECT ON
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:20:13 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:21:06 ON 21 APR 2005
                SET SMARTSELECT ON
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:39:37 ON 21 APR 2005
                E LI/ELS
L7         103105 S E3
L8          62839 S L7 NOT (TIS OR AYS OR MXS OR MNS OR PMS)/CI
L9          62781 S L8 NOT SQL/FA
L10         22539 S L9 AND 1/NC
L11         10103 S L10 NOT CCS/CI
L12         40242 S L9 NOT L10
L13         29499 S L12 NOT CCS/CI

     FILE 'CASREACT' ENTERED AT 13:42:20 ON 21 APR 2005
```

```
L14         1134 S L11 AND L2
L15          356 S L13 AND L2

     FILE 'REGISTRY' ENTERED AT 13:42:40 ON 21 APR 2005
L16        63503 S L7 NOT L11,L13
L17          212 S L16 NOT (TIS OR AYS OR MNS OR PMS OR CCS)/CI
L18        63291 S L16 NOT L17
L19         2346 S L18 AND PMS/CI
L20        60945 S L18 NOT L19

     FILE 'HCAPLUS' ENTERED AT 13:43:35 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:43:53 ON 21 APR 2005
L21            0 S L17 AND L2
L22            0 S L19 AND L2

     FILE 'REGISTRY' ENTERED AT 13:44:12 ON 21 APR 2005
L23        23198 S L20 AND CCS/CI
L24        37754 S L20 AND (TIS OR AYS OR MNS)/CI

     FILE 'CASREACT' ENTERED AT 13:44:34 ON 21 APR 2005
L25          246 S L23 AND L2

     FILE 'REGISTRY' ENTERED AT 13:44:56 ON 21 APR 2005
L26        30493 S L24 AND TIS/CI
L27         7261 S L24 NOT L26

     FILE 'CASREACT' ENTERED AT 13:45:08 ON 21 APR 2005
L28            0 S L27 AND L2

     FILE 'REGISTRY' ENTERED AT 13:45:20 ON 21 APR 2005
L29        30493 S L26 OR L26
L30        15000 S L29  RAN=(208717-06-0,)
L31        15493 S L29  RAN=(,208717-05-9)

     FILE 'CASREACT' ENTERED AT 13:45:57 ON 21 APR 2005
L32            0 S L30 AND L2
L33            0 S L31 AND L2
L34         1397 S L14 OR L15 OR L25
L35          987 S L34 AND L6
               E CYANATE/CT
L36            0 S E4 AND L35
L37            3 S E5 AND L35
L38            1 S E6 AND L35
L39            0 S E7 AND L35
               E CYAN/CW
L40            3 S E3-E24 AND L35
L41            3 S L37,L38,L40
               E CYAN/FG.RCT
L42            2 S E5 AND L35
               E CYAN/FG.RGT
L43            0 S E5 AND L35
               E CYAN/FG.RXN
L44            2 S E5 AND L35
L45            5 S L41,L42,L44
L46           65 S L35 AND ELECTROPHIL?
L47            2 S L46 AND OXIRAN?
L48            5 S L46 AND ?CYAN?
L49            6 S L47,L48
L50            6 S L49 AND L2
L51            2 S L34 AND (MEUDT A? OR ERBES M? OR FORSTINGER K?)/AU
L52            3 S L2 AND (MEUDT A? OR ERBES M? OR FORSTINGER K?)/AU
L53            2 S L52 AND L34
```

```
     FILE 'REGISTRY' ENTERED AT 13:54:52 ON 21 APR 2005
                E OC2/ES
L54        188185 S E3
L55         82477 S L54 AND 1/NC
L56         20855 S L55 AND 1/NR

     FILE 'CASREACT' ENTERED AT 13:55:53 ON 21 APR 2005
L57            20 S L56 AND L35
L58            20 S L6 AND L57
               STR L4
               STR L59
L61            13 S L59 SAM SUB=L2
L62           242 S L59 FUL SUB=L2
L63            27 S L60 FUL SUB=L2
               SAV L62 ZINNA677B/A
               SAV L63 ZINNA677C/A
L64           113 S L62,L63 AND L34
L65            79 S L64 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L66            79 S L65 AND 1/NS
L67             1 S L51,L52,L53 AND L66
               STR L59
L69           243 S L68 FUL SUB=L2
L70           174 S L6 AND L69
L71            89 S L70 AND L35

     FILE 'HCAPLUS' ENTERED AT 14:02:41 ON 21 APR 2005

     FILE 'REGISTRY' ENTERED AT 14:02:58 ON 21 APR 2005
L72               STR
L73            50 S L72
               STR
L75            34 S L74 CSS SAM
               SCR 1243
L77            37 S L74 AND L76 CSS SAM
               SCR 2127
L79            12 S L74 AND L76 NOT L78 CSS SAM
               SCR 2039 OR 2127 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 205
L81             3 S L74 AND L76 NOT L80 CSS SAM
               STR L74
L83             3 S L82 AND L74 AND L76 NOT L80 CSS SAM
               STR L82
               SCR 1993 OR 2004 OR 2021 OR 2026
L86            50 S L84 AND L74 AND L76 NOT (L80 OR L85) CSS SAM
L87            50 S L84 AND L74 AND L76 NOT L85 CSS SAM
L88          2691 S L84 AND L74 AND L76 NOT (L85 OR L80) CSS FUL
               SAV L88 ZINNA677D/A TEMP
L89               STR
L90             4 S L89
               STR L89
               E OC2/ES
L92        188185 S E3
L93            50 S L91 SAM SUB=L92
L94             1 S OXIRANE/CN
L95           334 S L92 AND C4H8O2
L96            51 S L95 AND 1/NC
L97             5 S L96 AND OXIRANEETHANOL
L98             3 S L97 NOT (PMS/CI OR 18O)

     FILE 'HCAPLUS' ENTERED AT 14:12:13 ON 21 APR 2005
L99         78142 S L88
L100        19623 S L94,L98
L101        97106 S L99,L100
```

```
L102        2643 S L11 AND L101
L103        2165 S L13 AND L101
L104           2 S L17 AND L101
L105          61 S L19 AND L101
L106         908 S L23 AND L101
L107          52 S L27 AND L101
L108          67 S L30 AND L101
L109         161 S L31 AND L101
L110        3719 S LITHIUM AND L101
L111        1563 S LI AND L101
L112        5353 S L102-L111
L113         721 S L112 AND ?PYRID?
L114         665 S L112 AND HET?/SC,SX
L115        1191 S L113,L114
L116        4162 S L112 NOT L115

     FILE 'REGISTRY' ENTERED AT 14:16:04 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:16:04 ON 21 APR 2005
               SET SMARTSELECT ON
L117          SEL L115 1- RN :   50611 TERMS
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:16:30 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:16:56 ON 21 APR 2005
L118        4679 S L112 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L119         562 S L118 AND L113
L120         547 S L118 AND L114
L121        3710 S L118 AND L116

     FILE 'REGISTRY' ENTERED AT 14:17:59 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:17:59 ON 21 APR 2005
               SET SMARTSELECT ON
L122          SEL L119 1- RN :   31041 TERMS
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:18:25 ON 21 APR 2005
L123       31040 S L122

     FILE 'HCAPLUS' ENTERED AT 14:20:32 ON 21 APR 2005
               SET SMARTSELECT ON
L124          SEL L120 1- RN :   32007 TERMS
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:20:51 ON 21 APR 2005
L125       32007 S L124

     FILE 'HCAPLUS' ENTERED AT 14:23:12 ON 21 APR 2005
               SET SMARTSELECT ON
L126          SEL L121 1- RN :   43471 TERMS
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:24:48 ON 21 APR 2005
L127       43471 S L126
L128       81702 S L123,L125,L127
L129          50 S L72 SAM SUB=L128
L130        3556 S L72 FUL SUB=L128
               SAV L130 TEMP ZINNA677E/A
L131           STR L72
L132          618 S L131 FUL SUB=L130
               SAV L132 ZINNA677F/A
```

```
L133       2938 S L130 NOT L132
                SAV L133 ZINNA677G/A

     FILE 'HCAPLUS' ENTERED AT 14:28:53 ON 21 APR 2005
L134         78 S L132 AND L133 AND L118
L135         64 S L132 (L) RACT+NT/RL AND L134
L136         61 S L133 (L) PREP+NT/RL AND L135
L137         52 S L136 AND L88 (L) RACT+NT/RL
L138          0 S L136 AND L88 (L) CAT+NT/RL
L139          7 S L136 AND (L94 OR L98)(L)(RACT+NT OR CAT)/RL
L140         57 S L137,L139
L141         40 S L140 AND (L11 OR L13 OR L17 OR L19 OR L23 OR L27 OR L30 OR L3
L142          0 S L140 AND (L11 OR L13 OR L17 OR L19 OR L23 OR L27 OR L30 OR L3
L143         28 S L141 AND HET?/SC,SX

     FILE 'REGISTRY' ENTERED AT 14:36:00 ON 21 APR 2005

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:37:10 ON 21 APR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 21 Apr 2005  VOL 142 ISS 17
FILE LAST UPDATED: 20 Apr 2005  (20050420/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d l143 bib abs hitrn retable tot

L143 ANSWER 1 OF 28  HCAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:609929  HCAPLUS
DN   141:157023
TI   Preparation of 3,4-diaminocyclobutene-1,2-diones as CXC-chemokine receptor
     ligands
IN   Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping;
     Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin,
     John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Biju, Purakkattle J.;
     Nelson, Kingsley H.; Rokosz, Laura L.; Jakway, James P.; Lai, Gaifa; Wu,
     Minglang; Hecker, Evan A.; Lundell, Daniel; Fine, Jay S.
PA   Schering Corporation and Pharmacopeia, Inc., USA
SO   U.S. Pat. Appl. Publ., 352 pp., Cont.-in-part of U.S. Ser. No. 241,326.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 5
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   US 2004147559        A1    20040729    US 2003-630258         20030730 <--
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	US 2004097547	A1	20040520	US 2002-208412	20020730 <--
	US 2004106794	A1	20040603	US 2002-241326	20020911 <--
PRAI	US 2001-284026P	P	20010416 <--		
	US 2002-122841	B2	20020415		
	US 2002-208412	A2	20020730		
	US 2002-241326	A2	20020911		

OS MARPAT 141:157023

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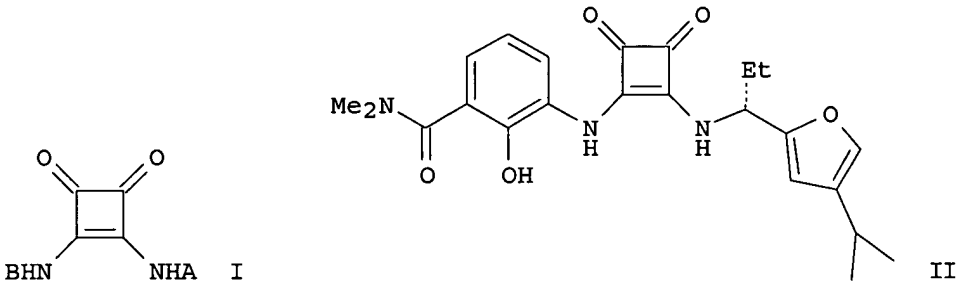


AB Title compds. [I; A = (substituted) pyridylmethyl, thiazolylmethyl, benzofurylmethyl, isoxazolylmethyl, pyrazinylmethyl, triazolylmethyl, phenylalkyl, etc.; B = (substituted) Ph, benzotriazolyl, benzimidazolyl, imidazolyl, pyrazolyl, hydroxypyridinyl, thienyl, pyrrolyl, isothiazolyl, etc.], were prepared Thus, title compound (II) (preparation outlined) showed Ki =
0.8 nM in a CXCR2 SPA receptor binding assay.

IT **473730-04-0P 473730-05-1P 473730-06-2P**
473730-60-8P 473730-63-1P 473730-69-7P
473730-73-3P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(claimed compound; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT **473724-65-1P 473724-67-3P 473724-70-8P**
473724-78-6P 473725-17-6P 473725-18-7P
473725-19-8P 473728-57-3P 473729-15-6P
473729-53-2P 473729-75-8P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT **78-82-0**, Isobutyronitrile **98-98-6**, Picolinic acid **594-19-4**, tert-Butyllithium **811-49-4**, Ethyllithium **917-54-4**, Methyllithium **1888-75-1**, Isopropyllithium **2402-95-1**, 2-Chloropyridine N-oxide **2786-07-4**, 2-Thienyllithium **3002-94-6**, Cyclopropyllithium **3731-53-1**, 4-Pyridinylmethylamine **19524-06-2**, 4-Bromopyridine hydrochloride **20173-04-0 34803-66-2**, 1-(Pyridin-2-yl)piperazine **50392-78-4**, 1-(4-Pyridinyl)ethylamine **60289-68-1**, 1-(4-Pyridinyl)propylamine **80866-91-7**, 2-Bromopyridine N-oxide hydrochloride **147701-78-8**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

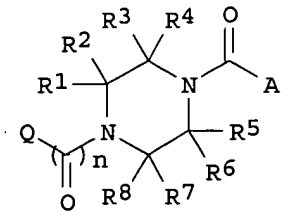
IT **1008-91-9P 39639-98-0P 63980-43-8P**
337956-36-2P 389628-28-8P 473731-17-8P
473731-58-7P 473731-59-8P 473731-60-1P

473731-75-8P 473733-59-4P 473733-91-4P
473733-92-5P 473733-97-0P 473733-98-1P
473733-99-2P 473734-00-8P 473734-01-9P
473734-25-7P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

L143 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:473357 HCAPLUS
DN 141:38633
TI Composition and antiviral activity of substituted azaindoleoxoacetic piperazine derivatives
IN Wang, Tao; Zhang, Zhongxing; Meanwell, Nicholas A.; Kadow, John F.; Yin, Zhiwei; Xue, Qiufen May; Regueiro-Ren, Alicia; Matiskella, John D.; Ueda, Yasutsugu
PA USA
SO U.S. Pat. Appl. Publ., 350 pp., Cont.-in-part of U.S. Pat. Appl. 2003 207,910.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004110785	A1	20040610	US 2003-630278	20030730 <--
	US 2003069266	A1	20030410	US 2002-38306	20020102 <--
	US 2003207910	A1	20031106	US 2002-214982	20020807 <--
PRAI	US 2001-266183P	P	20010202	<--	
	US 2001-314406P	P	20010823	<--	
	US 2002-38306	B2	20020102		
	US 2002-214982	B2	20020807		

OS MARPAT 141:38633
GI



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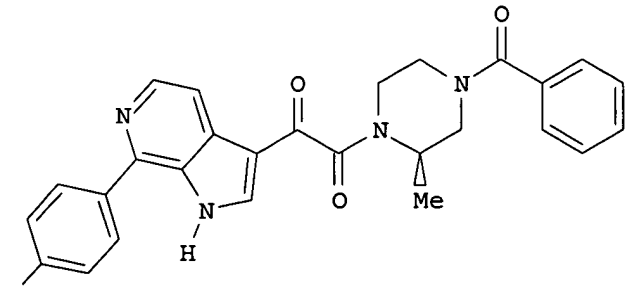

II

AB Title compds. I [n = 1 or 2; Q = (un)substituted azaindole heterocycle; A = alkoxy, (un)substituted aryl or heteroaryl; R1-8 are independently

selected from H, alkyl or haloalkyl consisting of up to three halogen substituents with same or different halogens] having drug and bio-affecting properties, their pharmaceutical compns., method of use, and synthetic preparation are disclosed. Thus, e.g., II was prepared via palladium catalyzed coupling of 1-benzoyl-3-(R)-methyl-4-[(7-(4-fluorophenyl)-6-azaindol-3-yl)oxoacetyl]-piperazine (preparation given) with 4-fluorophenylboronic acid. The compds. I were tested for inhibition of luciferase expression (data given). These compds. possess unique antiviral activity, whether used alone or in combination with other antivirals, antiinfectives, immunomodulators or HIV entry inhibitors. More particularly, the present invention relates to the treatment of HIV and AIDS.

IT **446285-39-8P 619331-43-0P**
RL: PAC (Pharmacological activity); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(intermediate; preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **136888-20-5P 136888-21-6P 165669-35-2P 227473-79-2P 259807-95-9P 357262-82-9P 357262-83-0P 357262-86-3P 357262-87-4P 357262-89-6P 357263-37-7P 357263-38-8P 357263-41-3P 357263-43-5P 357263-48-0P 357263-53-7P 357263-55-9P 357263-57-1P 357263-63-9P 357263-65-1P 357263-67-3P 357263-69-5P 425380-38-7P 446284-16-8P 446284-20-4P 446284-32-8P 446284-38-4P 446284-40-8P 446284-42-0P 446284-44-2P 446284-46-4P 446284-48-6P 446284-50-0P 446284-52-2P 446284-54-4P 446284-56-6P 446284-58-8P 446284-62-4P 446284-66-8P 446284-68-0P 446284-70-4P 446284-78-2P 446284-82-8P 446284-86-2P 446284-90-8P 446284-92-0P 446284-94-2P 446284-96-4P 446284-98-6P 446285-02-5P 446285-04-7P 446285-08-1P 446285-10-5P 446285-18-3P 446285-21-8P 446285-24-1P 446285-30-9P 446285-32-1P 446285-34-3P 446285-37-6P 446285-42-3P 446285-44-5P 446285-46-7P 446285-48-9P 446285-97-8P 446286-14-2P 446286-52-8P 446287-53-2P 446287-55-4P 619331-35-0P 619331-36-1P 619331-37-2P 619331-38-3P 619331-39-4P 619331-40-7P 619331-41-8P 619331-42-9P 619331-50-9P 619331-52-1P 619331-72-5P 619331-73-6P 619331-74-7P 619331-75-8P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(intermediate; preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **701212-61-5P 701212-91-1P 701212-92-2P 701213-12-9P 701213-14-1P**
RL: PAC (Pharmacological activity); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **619330-84-6P 701212-54-6P 701212-55-7P 701212-56-8P 701212-57-9P 701212-58-0P 701212-59-1P 701212-60-4P 701212-62-6P 701212-63-7P 701212-64-8P 701212-65-9P 701212-66-0P 701212-67-1P 701212-68-2P 701212-69-3P 701212-70-6P 701212-71-7P**

701212-72-8P 701212-73-9P 701212-74-0P
701212-75-1P 701212-76-2P 701212-77-3P
701212-78-4P 701212-79-5P 701212-80-8P
701212-81-9P 701212-82-0P 701212-83-1P
701212-84-2P 701212-85-3P 701212-86-4P
701212-87-5P 701212-88-6P 701212-89-7P
701212-90-0P 701212-93-3P 701212-94-4P
701212-95-5P 701212-96-6P 701212-97-7P
701212-98-8P 701212-99-9P 701213-00-5P
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701213-67-4P 701214-27-9P 701214-28-0P
701214-29-1P 701214-30-4P 701214-31-5P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **75-05-8**, Acetonitrile, reactions **27509-28-0**
200431-98-7 701213-75-4 701213-76-5
701214-24-6 701214-25-7 701214-26-8
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **51173-04-7P 639519-63-4P 652160-72-0P**
676491-46-6P 676491-47-7P 701213-69-6P
701213-71-0P 701213-73-2P 701213-78-7P
701213-80-1P 701213-82-3P 701213-83-4P
701213-85-6P 701213-87-8P 701213-88-9P
701213-90-3P 701213-92-5P 701213-94-7P
701213-95-8P 701213-97-0P 701213-98-1P
701213-99-2P 701214-00-8P 701214-01-9P
701214-02-0P 701214-03-1P 701214-04-2P
701214-05-3P 701214-06-4P 701214-07-5P
701214-08-6P 701214-09-7P 701214-10-0P
701214-11-1P 701214-12-2P 701214-13-3P
701214-14-4P 701214-15-5P 701214-16-6P
701214-17-7P 701214-18-8P 701214-19-9P
701214-20-2P
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **934-60-1 1072-97-5 2786-07-4**, 2-Thienyl lithium **4021-07-2**, 3-Methyl-2-picolinic acid

4529-04-8, Propynyllithium **5470-18-8**,
2-Chloro-3-nitropyridine **13091-23-1**, 4-Chloro-3-nitropyridine
13472-85-0, 2-Methoxy-5-bromopyridine **13534-97-9**
14397-13-8 17228-64-7 18368-63-3
19755-53-4, 2-Bromo-3-nitropyridine **23056-33-9**,
2-Chloro-4-methyl-5-nitropyridine **45644-21-1 54079-68-4**
, 4-Chloro-3-nitropyridine hydrochloride **67443-38-3**,
2-Chloro-3-nitro-5-bromopyridine **75806-86-9**,
2-Bromo-5-chloro-3-nitropyridine **84400-99-7 223463-13-6**
, 5-Bromo-2-iodopyridine **306936-79-8 357263-01-5**
446284-18-0 619331-55-4 619331-71-4
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(starting material; preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **51173-05-8P**, 5-Fluoro-2-pyridinone
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(starting material; preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **446287-89-4P 446289-68-5P 446289-70-9P**
446290-45-5P 446290-64-8P 619330-51-7P
619331-05-4P
RL: PAC (Pharmacological activity); **RCT (Reactant)**; **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; **RACT (Reactant or reagent)**
; USES (Uses)
(target compound; preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

IT **446287-57-6P 446287-59-8P 446287-61-2P**
446287-64-5P 446287-67-8P 446287-70-3P
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619331-13-4P 619331-14-5P 619331-15-6P
619331-16-7P 619331-17-8P 619331-18-9P
619331-19-0P 619331-20-3P 619331-21-4P
619331-22-5P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(target compound; preparation and antiviral activity of substituted azaindoleoxoacetic piperazine derivs.)

L143 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:168842 HCAPLUS
DN 138:204952
TI Preparation of piperidines with activity on muscarinic receptors
IN Brann, Mark; Messier, Terri; Currier, Erika; Duggento, Kate; Spalding, Tracy; Friberg, Mikael; Skjaerbaek, Niels
PA Acadia Pharmaceuticals Inc., USA
SO U.S., 23 pp., Cont.-in-part of U.S. Ser. No. 282,778, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6528529	B1	20030304	US 1999-356202	19990716 <--
	WO 2001005763	A2	20010125	WO 2000-US19366	20000714 <--
	WO 2001005763	A3	20020117		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,

YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2003144285 A1 20030731 US 2003-338937 20030107 <--
PRAI US 1998-80133P P 19980331 <--
US 1999-282778 B2 19990331 <--
US 1999-356202 A 19990716 <--
OS MARPAT 138:204952
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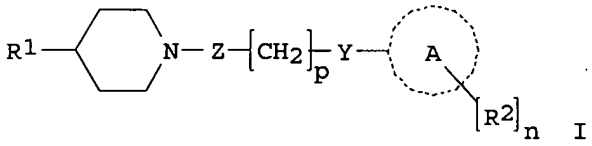

I

AB The title compds. [I; R1 = alkyl, alkenyl, alkynyl, etc.; A = cycloalkyl, Ph, naphthyl, heteroaryl; R2 = H, NH2, OH, etc.; n = 1-4; p = 0-5; Y = NHCO, CO; Z = a bond, CR8R9 (R8, R9 = H, alkyl); with provisos], useful for the alleviation or treatment of diseases or conditions in which modification of muscarinic m1 receptor activity has a beneficial effect, were prepared E.g., a multi-step synthesis of I [R1 = Bu; A = 2-MeC6H4; Y = CO; Z = CH2; p = 2] which only activated the m1 receptor subtype, at which it was a potent partial agonist, was given.

IT **244291-76-7P**
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of piperidines with activity on muscarinic receptors)

IT **75-05-8**, Acetonitrile, reactions **109-04-6**, 2-Bromopyridine **109-72-8**, n-Butyllithium, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of piperidines with activity on muscarinic receptors)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Aktiebolog, F	1967				HCAPLUS
Albrecht	1989				HCAPLUS
Aldous, F	1974	17	1100	J Med Chem	HCAPLUS
Ando	1996			US 5534522 A	HCAPLUS
Anon	1961			GB 874206	HCAPLUS
Anon	1962			BE 610830	HCAPLUS
Anon	1965			FR 1382425	HCAPLUS
Anon	1966			NL 6603799	HCAPLUS
Anon	1968			FR 1543944	HCAPLUS
Anon	1969			GB 1142143	
Anon	1969			FR 1570446	HCAPLUS
Anon	1973			DE 2259004	HCAPLUS
Anon	1975			FR 2261008	HCAPLUS
Anon	1986			JP 61280497	HCAPLUS
Anon	1988			DE 3706585 A1	HCAPLUS
Anon	1989			EP 0332570 A2	HCAPLUS
Anon	1991			EP 384285	HCAPLUS
Anon	1992			EP 0514277	HCAPLUS
Anon	1993			EP 370415	HCAPLUS
Anon	1993			WO 9300313	HCAPLUS
Anon	1993			WO 9314089	HCAPLUS
Anon	1993			WO 9318772	HCAPLUS

Anon	1994			DE 4234198	HCAPLUS
Anon	1994			JP 6298732	
Anon	1994			JP 6305967	
Anon	1994			WO 9422861	HCAPLUS
Anon	1995			WO 0900131	
Anon	1995			EP 311313	HCAPLUS
Anon	1995			EP 384288	HCAPLUS
Anon	1995			EP 647642	HCAPLUS
Anon	1995			WO 9531457	HCAPLUS
Anon	1996			EP 429344	HCAPLUS
Anon	1996			EP 709381	HCAPLUS
Anon	1996			EP 723781	HCAPLUS
Anon	1996			EP 727208	HCAPLUS
Anon	1996			EP 727209	HCAPLUS
Anon	1996			WO 9603377	HCAPLUS
Anon	1996			WO 9619479	HCAPLUS
Anon	1996			WO 9626196	HCAPLUS
Anon	1996			WO 9638422	HCAPLUS
Anon	1996			WO 9640687	HCAPLUS
Anon	1997			EP 0805153	HCAPLUS
Anon	1997			EP 805153	HCAPLUS
Anon	1997			WO 9700894	HCAPLUS
Anon	1997			WO 9740044	HCAPLUS
Anon	1997			WO 9740045	HCAPLUS
Anon	1998			WO 9800412	HCAPLUS
Anon	1998			WO 9805292	HCAPLUS
Anon	1998			WO 9806697	HCAPLUS
Anon	1998			WO 9847900	HCAPLUS
Anon	1999			WO 9917771	HCAPLUS
Anon	1999			WO 9950247	HCAPLUS
Anon	2001			International Search	
Archibald	1977			US 4045566 A	HCAPLUS
Avery	1997	11	450	Drugs & Aging	HCAPLUS
Bailey	1930		1633	Piperidine Derivativ	HCAPLUS
Bolden	1992	260	576	The J of Pharmacolog	HCAPLUS
Bonner	1988	1	403	Neuron	HCAPLUS
Bonner	1987	237	527	Science	HCAPLUS
Bossier	1967				HCAPLUS
Bossier	1967				HCAPLUS
Brauner-Osborne	1995	38	2188	J Med Chem	MEDLINE
Britton	1954	43	641	J Am Pharm Ass'n	HCAPLUS
Brown	1996		141	Goodman & Gilman's T	HCAPLUS
Burckhalter	1961	26	4070	J Org Chem	HCAPLUS
Burger	1946			US 2400913 A	HCAPLUS
Burger	1943	65	2382	J Am Chem Soc	
Burger	1946	68	520	J Am Chem Soc	
Carr	1981				HCAPLUS
Christensen	1975			US 3912743 A	HCAPLUS
Conde	1978	21	978	J Med Chem	HCAPLUS
Dunbar	1992			US 5175166 A	HCAPLUS
Dunbar	1995			US 5403845 A	HCAPLUS
Fleming	1977				HCAPLUS
Foged	1995			US 5470850 A	HCAPLUS
Foye	1979	68	591	J Pharm Sci	HCAPLUS
Fuller	1971	14	322	J Med Chem	HCAPLUS
Fuller	1973	25	828	J Pharm Pharmacol	HCAPLUS
Fuller	1975	14	739	Neuropharmacology	HCAPLUS
Gail, R	1995		147	Abstract 169807-59-4	HCAPLUS
Glozman	1969				HCAPLUS
Hernestam	1974			US 3816433 A	HCAPLUS
Hernestam	1982				HCAPLUS
Hoffer	1938			US 2126329 A	HCAPLUS
Hohlweg	1993			US 5177077 A	HCAPLUS

Hohlweg	1994			US 5276035 A	HCAPLUS
Hohlweg	1996			US 5512562 A	HCAPLUS
Honkanen	1983	26	1433	J Med Chem	HCAPLUS
Iversen	1997	60	1145	Life Sciences	HCAPLUS
Jaen	1995	56	845	Life Sciences	HCAPLUS
Jeanjean	1997	41	1010	Neuroleptic Binding	HCAPLUS
Jones	1992		170	Molecular Biology of	HCAPLUS
Kaiser	1993	36	610	J Med Chem	HCAPLUS
Kasa	1997	52	511	Progress in Neurobio	HCAPLUS
Lafon	1984				HCAPLUS
Law, B	1987	407	1	J Cromatog	HCAPLUS
Levey, A	1996	93	13541	Proc Natl Acad Sci U	HCAPLUS
Lukovits	1981	20	429	Int J Quantum Chem	HCAPLUS
McElvain	1946	68	2592	Piperidine Derivativ	HCAPLUS
Messer	1998			US 5726179 A	HCAPLUS
Mitch	1998			US 5834458 A	HCAPLUS
Ono	1978				HCAPLUS
Paris	1973	2	672	Bulletin de la Socie	
Penni, E	1988	280	1191	Science	
Profft, E	1958	8	268	Drug Research	HCAPLUS
Rieu	1995				HCAPLUS
Saab	1992			US 5093333 A	HCAPLUS
Sabb	1995			US 5468875 A	HCAPLUS
Sabb	1996			US 5510478 A	HCAPLUS
Sabb	1996			US 5571819 A	HCAPLUS
Sabb	1998			US 5756501 A	HCAPLUS
Sasajima	1976				HCAPLUS
Schulman	1991			US 4992457 A	HCAPLUS
Standaert	1996		503	Goodman & Gilman's T	
Sunderland	1988	13	371	Brain Research Revie	
Swain	1954			US 2695295 A	HCAPLUS
Taylor, P	1996		161	Goodman & Gilman's T	
Truitt	1952	74	5448	J Am Chem Soc	
van Daele	1983				HCAPLUS
Walker	1961	26	2740	J Org Chem	

L143 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:154427 HCAPLUS
DN 138:221468
TI Preparation of indolylethylaminopropanediol aryl ethers as β3 adrenergic agonists
IN Bastian, Jolie Anne; Evers, Britta; Finley, Don Richard; He, John Xiaoqiang; Jesudason, Cynthia Darshini; Karanjawala, Rushad E.; Ratz, Andrew Michael; Rocco, Vincent Patrick; Ruehter, Gerd; Sall, Daniel Jon; Schotten, Theo; Spinazze, Patrick Gianpietro; Stevens, Freddie Craig; Trankle, William George; Werner, John Arnold
PA Eli Lilly and Company, USA
SO PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003016307	A1	20030227	WO 2002-US21317	20020806 <--

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,

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            CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
            NE, SN, TD, TG
     EP 1421078          A1    20040526    EP 2002-752178         20020806 <--
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     JP 2005501856       T2    20050120    JP 2003-521230         20020806 <--
     US 2005080110       A1    20050414    US 2003-486867         20020806 <--
PRAI US 2001-312275P     P     20010814  <--
     WO 2002-US21317     W     20020806
OS   MARPAT 138:221468
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; dotted line = optional double bond; m = 0-2; A1, A2, A3 = C, N; ≤1 of A1, A2, A3 = N; D = NR8, O, S; Het = (substituted) (benzo-fused) 5-6 membered heterocyclyl; R1, R2 = H, halo, OH, alkyl, alkoxy, haloalkyl, alkylsulfonyl; R3 = H, alkyl; R4 = H, cyano, alkyl, CO2N(R9)2, CO2R9; R5 = H, alkyl; R4, R5, R8 may form bonds with X2; R6 = halo, OH, cyano, alkyl, haloalkyl, alkoxy; R7 = H, CO2R10, CON(R10)2, CH:CHR11, N(R10)2, (substituted) Ph, heterocyclyl; R8 = H, alkyl; R9, R10 = H, alkyl, Ph; N(R9)2, N(R10)2 = pyrrolidinyl, piperidinyl, hexamethyleneimino; R11 = cyano, heterocyclyl, (substituted) Ph, etc.; X = null, OCH2, SCH2; X1 = null, (CR19R20)q; X2 = null, CO, CONR21, NR21CO; q = 1-5; R19, R20 = H, alkyl; CR19R20 = carbocyclyl; R21 = H alkyl], were prepared Thus, epoxide (II), amine (III), and ytterbium trifluoromethanesulfonate hydrate were heated in MeCN at 80° for 20-60 h to give title compound (IV). IV showed β3 intrinsic activity Emax (SEM) = 25.6 (1.8) relative to isoproterenol. I are capable of increasing lipolysis and energy expenditure in cells and, therefore, is useful, e.g., for treating Type 2 diabetes and/or obesity.

IT **500704-69-8P 500704-71-2P 500704-73-4P**
500704-75-6P 500704-77-8P 500704-79-0P
500704-87-0P 500704-95-0P 500706-19-4P
500706-37-6P 500706-69-4P 500706-70-7P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of indolylethylaminopropanediol aryl ethers as β3 adrenergic agonists)

IT **107-13-1**, Acrylonitrile, reactions **73781-91-6**, Methyl 6-chloronicotinate **500139-42-4 500139-43-5**
500139-71-9 500139-72-0
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of indolylethylaminopropanediol aryl ethers as β3 adrenergic agonists)

IT **391926-91-3P 500138-71-6P 500138-72-7P**
500138-73-8P 500138-74-9P 500706-98-9P
500706-99-0P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of indolylethylaminopropanediol aryl ethers as β3 adrenergic agonists)

RETABLE

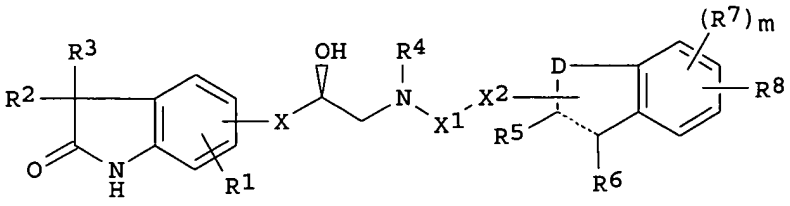
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Beiersdorf Ag	1986			EP 0166331 A	HCAPLUS
Bristol Myers Co	1979			DE 2830884 A	HCAPLUS

Hoechst Roussel Pharma	1987			EP 0221414 A	HCAPLUS
Lilly Co Eli	1997			EP 0764640 A	HCAPLUS
Schotten, T	2002			WO 0206276 A	HCAPLUS
Weber, A	1998	8	2111	BIOORGANIC & MEDICIN	HCAPLUS

L143 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:154400 HCAPLUS
DN 138:204942
TI Preparation and use of 3-substituted oxoindole as β3 agonists
IN Bastian, Jolie Anne; Finley, Don Richard; He, John Xiaoqiang; Jesudason, Cynthia Darshini; Ratz, Andrew Michael; Rocco, Vincent Patrick; Ruehter, Gerd; Sall, Daniel Jon; Schotten, Theo; Spinazze, Patrick Gianpietro; Stevens, Freddie Craig; Trankle, William George; Werner, John Arnold
PA Eli Lilly and Company, USA
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003016276	A2	20030227	WO 2002-US21316	20020806 <--
	WO 2003016276	A3	20040527		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1444224	A2	20040811	EP 2002-748081	20020806 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2005507872	T2	20050324	JP 2003-521203	20020806 <--
	US 2004242668	A1	20041202	US 2004-486508	20040211 <--
PRAI	US 2001-312135P	P	20010814 <--		
	WO 2002-US21316	W	20020806		

OS MARPAT 138:204942
GI



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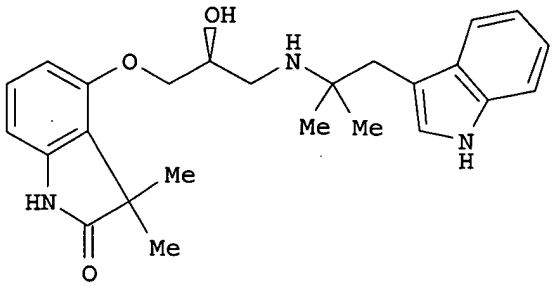


II

AB Title compds. I [dashed line = single or double bond; m = 0-2; D = amino, O, S; R1 = H, CN, halo, alkyl, haloalkyl, etc.; R2 = H, alkyl, benzyl; R3 = alkyl, benzyl or R2-3 combine with the C to which each are attached to form a carbocyclic ring; R4 = H, alkyl; R5 = H, CN, alkyl, etc.; R6 = H, alkyl, etc.; R7 = halo, OH, CN, alkyl, etc.; R8 = H, carboxy, carboxamido, etc.; X = OCH2, SCH2, bond; X1 = alkyl, bond; X2 = bond, CO, carboxamido, etc.] are prepared For instance, 4-hydroxy-3,3-dimethyl-1,3-dihydroindol-2-one (preparation given) was reacted with (2S)-(+)-glycidyl 3-nitrobenzenesulfonate to give the corresponding epoxide which when treated with the corresponding indolyl-amine gives II. I are β3 adrenergic receptor agonists. I are capable of increasing lipolysis and energy expenditure in cells and is useful for treating Type 2 diabetes and/or obesity.

IT **500139-79-7P 500139-81-1P**
RL: PAC (Pharmacological activity); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(preparation and use of 3-substituted oxoindole as β3 agonists for the treatment of diabetes/obesity)

IT **500140-67-0P 500140-68-1P 500140-69-2P 500140-70-5P**
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation and use of 3-substituted oxoindole as β3 agonists for the treatment of diabetes/obesity)

IT **107-13-1**, Acrylonitrile, reactions **6602-54-6 73781-91-6 500139-42-4 500139-43-5 500139-71-9 500139-72-0**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation and use of 3-substituted oxoindole as β3 agonists for the treatment of diabetes/obesity)

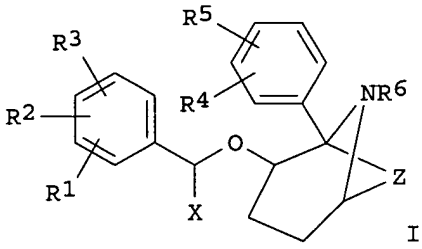
IT **500138-71-6P 500138-72-7P 500138-73-8P 500138-74-9P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and use of 3-substituted oxoindole as β3 agonists for the treatment of diabetes/obesity)

L143 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:965132 HCAPLUS
DN 138:39444
TI Preparation of azabicyclic ethers as NK1 receptor antagonists for use as therapeutic agents in the treatment or prevention of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia
IN Curtis, Neil Roy; Kulagowski, Janusz Jozef; Huscroft, Ian Thomas; Raubo, Piotr Antoni
PA Merck Sharp & Dohme Ltd., UK
SO U.S. Pat. Appl. Publ., 76 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002193402	A1	20021219	US 2002-113117	20020401 <--
US 6727249	B2	20040427		
WO 2004031185	A1	20040415	WO 2002-GB4491	20021004 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI GB 2001-8982 A 20010410 <--
OS MARPAT 138:39444
GI



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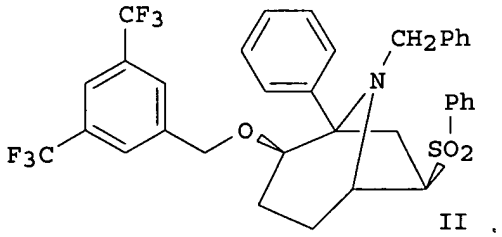


II

AB Azabicyclic ethers, such as I [X = H, alkyl, substituted alkyl; Z = -CH2CR9R10-, -CR9R10CH2-; R1 = H, NO2, CN, carboxy, carboxamide, haloalkyl, alkyl, alkoxy, alkenyl, alkynyl, etc.; R2 = H, halogen, alkyl, alkoxy; R3 = H, halogen, fluoroalkyl; R4 = H, CF3, NO2, CN, alkenyl, alkynyl, halogen, alkyl, alkoxy, etc.; R5 = H, CF3, halogen alkyl, alkoxy, etc.; R6 = H, OH, acyl, carboxy, alkyl, etc.; R9 = H, OH, :O, alkyl, alkenyl, alkynyl, alkoxy, sulfonyl, carboxy, carboxamido, heterocyclyl, etc.; R10 = H, OH, halogen], were prepared for use in the treatment of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia. Thus, tropane ether II was prepd in 83% yield by etherification of the corresponding 8-azabicyclo[3.2.1]octan-2-ol with 3,5-(F3C)2C6H3CH2Br using 18-crown-6 in THF. The prepared azabicyclic ethers were found to be active at the human NK1 receptor with IC50 values <100 nM.

IT **478486-03-2P 478486-04-3P 478486-05-4P**
478486-06-5P 478486-44-1P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)** ; USES (Uses)
(preparation of azabicyclic ethers as NK1 receptor antagonists for use as therapeutic agents in treatment or prevention of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia)

IT **107-13-1**, Acrylonitrile, reactions **591-51-5**, Phenyllithium **3308-02-9**, 3-Hydroxy-2-phenylpyridine **6602-32-0**, 2-Bromo-3-hydroxypyridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of azabicyclic ethers as NK1 receptor antagonists for use as therapeutic agents in treatment or prevention of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia)

IT **368835-00-1P 478483-55-5P 478483-56-6P**
478483-67-9P 478484-19-4P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of azabicyclic ethers as NK1 receptor antagonists for use as therapeutic agents in treatment or prevention of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia)

L143 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:861063 HCAPLUS
DN 139:117274
TI Product class 14: 1H- and 2H-isoindoles
AU Donohoe, T. J.
CS Department of Chemistry, University of Manchester, Manchester, M13 9PL, UK
SO Science of Synthesis (**2001**), 10, 653-692
CODEN: SSCYJ9
PB Georg Thieme Verlag
DT Journal; General Review
LA English
AB A review describes the nomenclature and history, and structure and stability, properties, and applications of 1H- and 2H-isoindoles. It also describes various methods for the synthesis of 1H- and 2H-isoindoles.

IT **108-99-6**, 3-Methylpyridine **536-78-7**, 3-Ethylpyridine **626-55-1**, 3-Bromopyridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(review of preparation of isoindole analogs by substituent modification)

IT **24113-70-0P 24113-71-1P 24113-75-5P**
24113-76-6P 24113-78-8P 24113-79-9P
24170-44-3P 24170-46-5P 564467-94-3P
564467-95-4P 564467-96-5P 564467-97-6P
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(review of preparation of isoindole analogs by substituent modification)

IT **100-47-0**, Cyanobenzene, reactions **594-19-4**, tert-Butyl **lithium 1770-96-3 3189-57-9 72090-72-3**
77425-51-5 83799-29-5
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(review of preparation of isoindoles)

IT **150674-41-2P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(review of preparation of isoindoles)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Aeberli, P	1969	34	1720	J Org Chem	HCAPLUS
Ahmed, I	1977	33	2255	Tetrahedron	HCAPLUS
Ahmed, M	1976		462	J Chem Soc, Chem Com	HCAPLUS
Anderson, P	1977	14	213	J Heterocycl Chem	HCAPLUS

Anderson, P	1979	44	1519	J Org Chem	HCAPLUS
Armarego, W	1972		2485	J Chem Soc, Perkin T	HCAPLUS
Armesto, D	1989		1343	J Chem Soc, Perkin T	HCAPLUS
Armesto, D	1992		2321	J Chem Soc, Perkin T	HCAPLUS
Bender, C	1968		3036	J Chem Soc C	HCAPLUS
Bender, C	1968		3036	J Chem Soc C	HCAPLUS
Bird, C	1992	58	335	Tetrahedron	
Bonnett, R	1981	29	341	Adv Heterocycl Chem	HCAPLUS
Bonnett, R	1972		393	J Chem Soc, Chem Com	HCAPLUS
Bonnett, R	1994		1129	J Chem Soc, Chem Com	HCAPLUS
Bonnett, R	1973		1432	J Chem Soc, Perkin T	HCAPLUS
Bonnett, R	1985		293	J Chem Soc, Perkin T	HCAPLUS
Bonnett, R	1984		833	J Chem Soc, Perkin T	HCAPLUS
Bonnett, R	1983	39	1401	Tetrahedron	HCAPLUS
Bornstein, J	1972		1149	J Chem Soc, Chem Com	HCAPLUS
Bornstein, J	1974		4247	Tetrahedron Lett	HCAPLUS
Bozhkova, N	1989	72	825	Helv Chim Acta	HCAPLUS
Brown, R	1972	25	607	Aust J Chem	HCAPLUS
Carlson, R	1986	51	3978	J Org Chem	HCAPLUS
Carmody, M	1976	32	1767	Tetrahedron	HCAPLUS
Carpino, L	1988	53	2565	J Org Chem	HCAPLUS
Chacko, E	1979	35	1055	Tetrahedron	HCAPLUS
Chacko, E	1977		1095	Tetrahedron Lett	HCAPLUS
Chadwick, D	1984	4	155	Comprehensive Hetero	
Chaudry, I	1982	35	1185	Aust J Chem	
Ciganek, E	1980	45	1512	J Org Chem	HCAPLUS
Cignarella, G	1969	99	1115	Gazz Chim Ital	
Cignarella, G	1976	106	65	Gazz Chim Ital	HCAPLUS
Cignarella, G	1974	11	1049	J Heterocycl Chem	HCAPLUS
Cignarella, G	1975		252	Synthesis	HCAPLUS
Clarkson, G	1995		1817	J Chem Soc, Perkin T	HCAPLUS
Clemens, A	1993	48	1257	Z Naturforsch, Teil	HCAPLUS
Clezy, P	1982	35	197	Aust J Chem	HCAPLUS
Clezy, P	1993	46	1705	Aust J Chem	HCAPLUS
Couture, A	1997	53	10313	Tetrahedron	HCAPLUS
Dupas, G	1980	17	93	J Heterocycl Chem	HCAPLUS
D'Amico, J	1983	20	1283	J Heterocycl Chem	HCAPLUS
Emmett, J	1966	22	1011	Tetrahedron	HCAPLUS
Engewald, W	1971	27	4171	Tetrahedron	HCAPLUS
Feldhoff, U	1986	119	1919	Chem Ber	HCAPLUS
Fletcher, H	1966	22	2481	Tetrahedron	HCAPLUS
Fryer, R	1966	88	3173	J Am Chem Soc	HCAPLUS
Fryer, R	1967		366	J Chem Soc C	HCAPLUS
Garmaise, D	1970		413	J Heterocycl Chem	HCAPLUS
Gilchrist, T	1975		12	J Chem Soc, Perkin T	HCAPLUS
Gribble, G	1996	2	207	Comprehensive Hetero	HCAPLUS
Gribble, G	1985	50	1611	J Org Chem	HCAPLUS
Haddadin, M	1992	33	541	Heterocycles	HCAPLUS
Haddadin, M	1973		5185	Tetrahedron Lett	HCAPLUS
Heaney, H	1972		3067	Tetrahedron Lett	HCAPLUS
Hoffmann, R	1985	118	634	Chem Ber	HCAPLUS
Jaques, B	1977	33	581	Tetrahedron	HCAPLUS
Jones, G	1996	2	1	Comprehensive Hetero	HCAPLUS
Jones, R	1984	4	201	Comprehensive Hetero	
Kotake, H	1972		445	Chem Lett	HCAPLUS
Kreher, R	1964	76	682	Angew Chem	HCAPLUS
Kreher, R	1966	78	984	Angew Chem	
Kreher, R	1964	3	639	Angew Chem Int Ed En	
Kreher, R	1966	5	614	Angew Chem Int Ed En	
Kreher, R	1970	9	955	Angew Chem Int Ed En	HCAPLUS
Kreher, R	1974	13	739	Angew Chem Int Ed En	
Kreher, R	1978	17	68	Angew Chem Int Ed En	
Kreher, R	1982	21	621	Angew Chem Int Ed En	

Kreher, R	1984	23	517	Angew Chem Int Ed En	
Kreher, R	1984	23	914	Angew Chem Int Ed En	
Kreher, R	1987	26	1262	Angew Chem Int Ed En	
Kreher, R	1988	121	1827	Chem Ber	HCAPLUS
Kreher, R	1988	121	81	Chem Ber	HCAPLUS
Kreher, R	1989	122	337	Chem Ber	HCAPLUS
Kreher, R	1986	110	299	Chem-Ztg	HCAPLUS
Kreher, R	1986	110	363	Chem-Ztg	HCAPLUS
Kreher, R	1987	111	155	Chem-Ztg	HCAPLUS
Kreher, R	1987	111	349	Chem-Ztg	HCAPLUS
Kreher, R	1988	112	335	Chem-Ztg	HCAPLUS
Kreher, R	1988	112	85	Chem-Ztg	HCAPLUS
Kreher, R	1978	11	409	Heterocycles	HCAPLUS
Kreher, R	1982	19	637	Heterocycles	HCAPLUS
Kreher, R	1969		4695	Tetrahedron Lett	HCAPLUS
Kreher, R	1973		1911	Tetrahedron Lett	HCAPLUS
Kreher, R	1976		1661	Tetrahedron Lett	HCAPLUS
Kreher, R	1980	21	3471	Tetrahedron Lett	HCAPLUS
Kreher, R	1973	28	801	Z Naturforsch, Teil	HCAPLUS
Kreher, R	1974	29	683	Z Naturforsch, Teil	HCAPLUS
Kreher, R	1988	43	125	Z Naturforsch, Teil	HCAPLUS
Kreher, R	1988	43	1332	Z Naturforsch, Teil	HCAPLUS
Kreher, R	1989	44	1132	Z Naturforsch, Teil	HCAPLUS
Kreher, R	1991	46	809	Z Naturforsch, Teil	HCAPLUS
Laatsch, H	1989		863	Liebigs Ann Chem	HCAPLUS
Lin, Y	1995	36	9441	Tetrahedron Lett	HCAPLUS
Mataka, S	1982		157	Synthesis	HCAPLUS
Matsumoto, K	1982		869	Chem Lett	HCAPLUS
Matsumoto, K	1983	20	1525	Heterocycles	HCAPLUS
Matsumoto, K	1996		2599	J Chem Soc, Perkin T	HCAPLUS
Matsumoto, K	1988	25	1793	J Heterocycl Chem	HCAPLUS
Matuszewski, B	1987	59	1102	Anal Chem	HCAPLUS
Nanya, S	1985	22	449	J Heterocycl Chem	HCAPLUS
Nanya, S	1990	27	1407	J Heterocycl Chem	HCAPLUS
Nanya, S	1992	29	1301	J Heterocycl Chem	HCAPLUS
Nanya, S	1992	29	255	J Heterocycl Chem	HCAPLUS
Orita, A	1994	59	477	J Org Chem	HCAPLUS
Padwa, A	1984	49	3174	J Org Chem	HCAPLUS
Paolini, J	1987	24	549	J Heterocycl Chem	HCAPLUS
Peterson, S	1959	623	166	Justus Liebigs Ann C	
Priestly, G	1972		4295	Tetrahedron Lett	
Sanna, P	1981	18	475	J Heterocycl Chem	HCAPLUS
Sastre, A	1996	61	8591	J Org Chem	HCAPLUS
Sato, R	1990	63	1160	Bull Chem Soc Jpn	HCAPLUS
Smith, K	1984	4	377	Comprehensive Hetero	
St Black, D	1996	2	39	Comprehensive Hetero	
Stoney Simmons, S	1981	46	4739	J Org Chem	
Sundberg, R	1984	4	313	Comprehensive Hetero	
Sundberg, R	1996	2	119	Comprehensive Hetero	HCAPLUS
Swanishi, H	1984	22	2725	Heterocycles	
Takahashi, I	1994	37	933	Heterocycles	HCAPLUS
Takahashi, I	1996	43	71	Heterocycles	
Takahashi, K	1985		1487	Chem Lett	
Theilacker, W	1953	584	87	Ann Chim	HCAPLUS
Theilacker, W	1955	597	95	Justus Liebigs Ann C	HCAPLUS
Tominaga, Y	1987	26	2073	Heterocycles	HCAPLUS
Veber, D	1964	86	4152	J Am Chem Soc	HCAPLUS
von Dobeneck, H	1969	102	1357	Chem Ber	HCAPLUS
von Dobeneck, H	1969	102	3500	Chem Ber	HCAPLUS
Wantanabe, Y	1979	35	1433	Tetrahedron	
White, J	1969	10	113	Adv Heterocycl Chem	HCAPLUS
White, J	1971	36	1048	J Org Chem	HCAPLUS
Winn, M	1969	34	249	J Org Chem	HCAPLUS

Wittig, G	1955	594	89	Ann Chim	HCAPLUS
Wittig, G	1951	572	1	Justus Liebigs Ann C	HCAPLUS
Wittig, G	1953	584	1	Justus Liebigs Ann C	HCAPLUS
Wojciechowski, K	1991		831	Liebigs Ann Chem	HCAPLUS
Young, J	1990	55	2155	J Org Chem	HCAPLUS
Zeeh, B	1972		45	Synthesis	HCAPLUS

L143 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:861062 HCAPLUS
DN 139:197300
TI Product class 13: indole and its derivatives
AU Joule, J. A.
CS Department of Chemistry, University of Manchester, Manchester, M13 9PL, UK
SO Science of Synthesis (**2001**), 10, 361-652
CODEN: SSCYJ9
PB Georg Thieme Verlag
DT Journal; General Review
LA English
AB A review of preparation of indoles and its derivs. Covered reactions include cyclization, ring transformation, aromatization and substituent modifications. Subclasses covered include 1H-indol-1-ols, 1,3-dihydro-2H-indol-2-ones, and 1,2-dihydro-3H-indol-3-ones.
IT **75-21-8**, Oxirane, reactions **100-43-6 107-13-1**, 2-Propenenitrile, reactions **109-04-6 109-72-8**, reactions **350-03-8 500-22-1**, 3-Pyridinecarboxaldehyde **591-51-5 1001-56-5**, 2,3-Butadienenitrile **1120-87-2 1121-60-4**, 2-Pyridinecarboxaldehyde **3052-45-7 13228-40-5 16183-87-2 16658-70-1 31785-72-5 124522-52-7 133166-04-8 169823-84-1 182180-15-0 439860-83-0 582320-35-2 582321-18-4**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(review of preparation of indoles and analogs thereof via cyclization, ring transformation, aromatization and substituent modifications)
IT **3367-88-2P 16658-71-2P 582320-07-8P**
RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation)**; RACT (Reactant or reagent)
(review of preparation of indoles and analogs thereof via cyclization, ring transformation, aromatization and substituent modifications)
IT **3367-84-8P 5552-65-8P 16571-66-7P 16658-72-3P 18344-49-5P 37715-65-4P 40900-03-6P 54852-26-5P 73282-12-9P 80360-13-0P 133166-00-4P 138917-59-6P 141306-15-2P 141306-16-3P 141306-17-4P 141306-19-6P 144497-01-8P 144823-17-6P 145364-14-3P 145364-15-4P 147646-70-6P 155440-44-1P 163064-83-3P 181780-79-0P 195705-80-7P 252187-02-3P 582319-82-2P 582319-91-3P 582319-93-5P 582319-95-7P 582320-08-9P**
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(review of preparation of indoles and analogs thereof via cyclization, ring transformation, aromatization and substituent modifications)
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Aboutayab, K	1996	52	11329	Tetrahedron	HCAPLUS
Abramovitch, R	1960	38	131	Can J Chem	HCAPLUS
Abramovitch, R	1956		4589	J Chem Soc	HCAPLUS
Abramovitch, R	1992		795	Synlett	HCAPLUS
Acheson, R			1301	J Chem Res M	
Acheson, R	1984		101	J Chem Res S	HCAPLUS

Acheson, R	1968		504	J Chem Soc C	HCAPLUS
Acheson, R	1978		1117	J Chem Soc, Perkin T	HCAPLUS
Adam, W	1992	125	2719	Chem Ber	HCAPLUS
Adams, R	1955	77	5375	J Am Chem Soc	HCAPLUS
Adams, R	1958	80	3291	J Am Chem Soc	HCAPLUS
Agarwal, A	1993	36	4006	J Med Chem	HCAPLUS
Agkuen, E	1989	26	1869	J Heterocycl Chem	
Akazome, M	1994	59	3375	J Org Chem	HCAPLUS
Akguen, E	1990	27	1473	J Heterocycl Chem	
Akguen, E	1986		1628	Liebigs Ann Chem	HCAPLUS
Akita, H	1990	38	323	Chem Pharm Bull	HCAPLUS
Albertson, N	1945	67	36	J Am Chem Soc	HCAPLUS
Allbright, J	1959	81	2239	J Am Chem Soc	
Allen, C	1955	3	597	Org Synth, Coll	
Allen, G	1973	20	337	Org React	HCAPLUS
Allen, M	1992	22	2077	Synth Commun	HCAPLUS
Almeida, P	1991	32	2671	Tetrahedron Lett	HCAPLUS
Alper, H	1983	20	2025	Heterocycles	HCAPLUS
Alvarez, M	1989	29	237	Heterocycles	HCAPLUS
Amat, M	1996	43	1713	Heterocycles	HCAPLUS
Amat, M	1994	59	10	J Org Chem	HCAPLUS
Amat, M	1997	62	3158	J Org Chem	HCAPLUS
Amat, M	1997	74	248	Org Synth	HCAPLUS
Amat, M	1994	35	793	Tetrahedron Lett	HCAPLUS
Amat, M	1996	37	3071	Tetrahedron Lett	HCAPLUS
An-naka, M	1994	39	251	Heterocycles	HCAPLUS
Andersen, K	1992	35	4823	J Med Chem	HCAPLUS
Andrews, J	1993	49	7353	Tetrahedron	HCAPLUS
Anon	1972-	259		The Chemistry of Het	
Anon	1983-	254		The Chemistry of Het	
Anthony, W	1960	25	2049	J Org Chem	HCAPLUS
Anzai, K	1979	16	567	J Heterocycl Chem	HCAPLUS
Aoki, K	1998	120	3068	J Am Chem Soc	HCAPLUS
Apparao, S	1984	23	15	Indian J Chem	
Appleton, J	1993	34	1529	Tetrahedron Lett	HCAPLUS
Arai, E	1998	39	71	Tetrahedron Lett	HCAPLUS
Arcadi, A	1990		47	Synlett	HCAPLUS
Arcadi, A	1994	50	437	Tetrahedron	HCAPLUS
Arcadi, A	1989	30	2581	Tetrahedron Lett	HCAPLUS
Arcadi, A	1992	33	3915	Tetrahedron Lett	HCAPLUS
Arcari, M	1991	121	499	Gazz Chim	HCAPLUS
Archibald, J	1970	13	138	J Med Chem	HCAPLUS
Arnold, R	1959	24	117	J Org Chem	HCAPLUS
Ashcroft, W	1983		2409	J Chem Soc, Perkin T	HCAPLUS
Asselin, A	1986	29	1009	J Med Chem	HCAPLUS
Atkinson, C	1947		1649	J Chem Soc	HCAPLUS
Atkinson, C	1954		165	J Chem Soc	HCAPLUS
Atkinson, J	1988		480	Synthesis	HCAPLUS
Augustine, R	1973	38	3004	J Org Chem	HCAPLUS
Augustine, R	1972	2	63	Synth Commun	
Ayer, W	1992	48	2919	Tetrahedron	HCAPLUS
Baake, J	1974	28	134	Acta Chem Scand Ser	
Baccolini, G	1983		2695	J Chem Soc, Perkin T	HCAPLUS
Baccolini, G	1988		971	J Chem Soc, Perkin T	HCAPLUS
Baccolini, G	1985	41	4615	Tetrahedron	HCAPLUS
Baccolini, G	1987	43	2755	Tetrahedron	HCAPLUS
Baciocchi, E	1968		401	J Chem Soc B	HCAPLUS
Baciocchi, E	1992	57	6817	J Org Chem	HCAPLUS
Bader, A	1961	83	3319	J Am Chem Soc	HCAPLUS
Bailey, A	1966		1345	J Chem Soc C	HCAPLUS
Bailey, A	1972		1626	J Chem Soc, Perkin T	HCAPLUS
Bailey, A	1972		2411	J Chem Soc, Perkin T	HCAPLUS
Bailey, A	1973		1602	J Chem Soc, Perkin T	HCAPLUS

Bailey, A	1981		382	J Chem Soc, Perkin T	HCAPLUS
Bailey, D	1985	28	160	J Med Chem	HCAPLUS
Bailey, P	1996		1479	Chem Commun	HCAPLUS
Bakke, J	1967	21	1967	Acta Chem Scand	HCAPLUS
Balasubramanian, T	1994		1237	J Chem Soc, Chem Com	HCAPLUS
Balogh-Hergovich, E	1986		2305	J Chem Soc, Perkin T	HCAPLUS
Balon, M	1989	45	7501	Tetrahedron	HCAPLUS
Balsamini, C	1995		370	Synthesis	HCAPLUS
Bansal, R	1978	16	533	Indian J Chem	
Bansal, R	1978	149	309	J Organomet Chem	HCAPLUS
Barbey, S	1995		27	Synlett	HCAPLUS
Barco, A	1976		124	Synthesis	HCAPLUS
Bard, R	1980	45	1546	J Org Chem	HCAPLUS
Barltrop, J	1954		3399	J Chem Soc	HCAPLUS
Barluenga, J	1993	58	2058	J Org Chem	HCAPLUS
Barnwell, N	1994	37	175	Heterocycles	HCAPLUS
Baron, M	1981		249	Bull Soc Chim Fr	
Barrett, A	1984	49	4409	J Org Chem	
Bartoli, G	1988		807	J Chem Soc, Chem Com	HCAPLUS
Bartoli, G	1991		2757	J Chem Soc, Perkin T	HCAPLUS
Bartoli, G	1980	45	522	J Org Chem	HCAPLUS
Bartoli, G	1986	51	3694	J Org Chem	HCAPLUS
Bartoli, G	1987	43	4221	Tetrahedron	HCAPLUS
Bartoli, G	1990	46	1379	Tetrahedron	HCAPLUS
Bartoli, G	1989	30	2129	Tetrahedron Lett	HCAPLUS
Barton, D	1985	41	4727	Tetrahedron	HCAPLUS
Basanagoudar, L	1967		2599	J Chem Soc C	HCAPLUS
Bascop, S	1994	38	725	Heterocycles	HCAPLUS
Basunagoudar, L	1975	30	58	Indian J Chem	
Batcho, A	1990	7	34	Org Synth, Coll	
Baudin, J	1985		956	Synthesis	HCAPLUS
Baudin, J	1986	27	837	Tetrahedron Lett	HCAPLUS
Baumgarten, H	1961	26	1536	J Org Chem	HCAPLUS
Baumgartner, M	1999		2053	Synthesis	HCAPLUS
Bazile, Y	1977	12	525	Eur J Med Chem	HCAPLUS
Beal, M	1982		435	J Chem Soc, Perkin T	HCAPLUS
Beckett, A	1968	24	6093	Tetrahedron	HCAPLUS
Beer, R	1948		1605	J Chem Soc	HCAPLUS
Beer, R	1948		2223	J Chem Soc	HCAPLUS
Beer, R	1949		2061	J Chem Soc	HCAPLUS
Beer, R	1951		2029	J Chem Soc	HCAPLUS
Bellesia, F	1989		182	J Chem Res S	HCAPLUS
Benigni, J	1965	2	387	J Heterocycl Chem	HCAPLUS
Benington, F	1958	23	19	J Org Chem	HCAPLUS
Bennasar, M	1986	42	637	Tetrahedron	HCAPLUS
Bennett, G	1989	72	1718	Helv Chim Acta	HCAPLUS
Benson, S	1992	57	5285	J Org Chem	HCAPLUS
Benzies, D	1986	16	1799	Synth Commun	HCAPLUS
Berger, J	1974		508	Synthesis	HCAPLUS
Bergman, J	1968	22	1063	Acta Chem Scand	HCAPLUS
Bergman, J	1971	25	1277	Acta Chem Scand	HCAPLUS
Bergman, J	1972	26	970	Acta Chem Scand	HCAPLUS
Bergman, J	1976	30	853	Acta Chem Scand Ser	
Bergman, J	1982	19	297	Heterocycles	HCAPLUS
Bergman, J	1982	19	301	Heterocycles	HCAPLUS
Bergman, J	1970	7	1071	J Heterocycl Chem	HCAPLUS
Bergman, J	1977	14	1123	J Heterocycl Chem	HCAPLUS
Bergman, J	1992	57	2495	J Org Chem	HCAPLUS
Bergman, J	1987	65	146	Org Synth	HCAPLUS
Bergman, J	1980	36	1439	Tetrahedron	HCAPLUS
Bergman, J	1980	36	2505	Tetrahedron	HCAPLUS
Bergman, J	1990	46	6061	Tetrahedron	HCAPLUS
Bergman, J	1990	46	6085	Tetrahedron	HCAPLUS

Bergman, J	1978		4051	Tetrahedron Lett	HCAPLUS
Bergman, J	1978		4055	Tetrahedron Lett	HCAPLUS
Bergman, J	1983	24	3665	Tetrahedron Lett	HCAPLUS
Bergman, J	1986	27	1939	Tetrahedron Lett	HCAPLUS
Bergman, J	1996	37	9263	Tetrahedron Lett	HCAPLUS
Berlin, A	1987	69	100	Chem Ind	
Berlin, A	1987		1176	J Chem Soc, Chem Com	HCAPLUS
Berrier, C	1987	11	611	New J Chem	HCAPLUS
Berti, C	1981		1610	J Chem Soc, Perkin T	HCAPLUS
Berti, C	1982	47	4895	J Org Chem	HCAPLUS
Berti, G	1968		2145	J Chem Soc C	HCAPLUS
Besford, L	1964		4037	J Chem Soc	HCAPLUS
Beswick, P	1988	44	7325	Tetrahedron	HCAPLUS
Betkerur, S	1968		1795	J Chem Soc	HCAPLUS
Beugelmans, R	1979		950	J Chem Soc, Chem Com	HCAPLUS
Beugelmans, R	1981	37	393	Tetrahedron	
Bhagwat, S	1994	35	1847	Tetrahedron Lett	HCAPLUS
Bird, C	1965		3490	J Chem Soc	HCAPLUS
Biswas, K	1968	34	1145	Tetrahedron	
Black, D	1983	36	2407	Aust J Chem	HCAPLUS
Black, D	1980		200	J Chem Soc, Chem Com	HCAPLUS
Black, D	1984		441	J Chem Soc, Chem Com	HCAPLUS
Black, D	1989		425	J Chem Soc, Chem Com	HCAPLUS
Black, P	1965	18	353	Aust J Chem	HCAPLUS
Blechert, S	1985	68	1835	Helv Chim Acta	HCAPLUS
Blechert, S	1995		592	Synthesis	HCAPLUS
Blechert, S	1992	33	6621	Tetrahedron Lett	HCAPLUS
Blume, R	1945	10	255	J Org Chem	HCAPLUS
Bobbitt, J	1990	30	1131	Heterocycles	HCAPLUS
Bocchi, V	1976		414	Synthesis	HCAPLUS
Bocchi, V	1982		1096	Synthesis	HCAPLUS
Bocchi, V	1978	34	929	Tetrahedron	HCAPLUS
Bocchi, V	1984	40	3251	Tetrahedron	HCAPLUS
Bocchi, V	1986	42	5019	Tetrahedron	HCAPLUS
Boettcher, H	1988		749	Liebigs Ann Chem	HCAPLUS
Boger, D	1987	52	1521	J Org Chem	HCAPLUS
Boger, D	1987	52	3934	J Org Chem	HCAPLUS
Boger, D	1988	53	1415	J Org Chem	HCAPLUS
Boger, D	1990	55	1379	J Org Chem	HCAPLUS
Boivin, J	1994	35	9553	Tetrahedron Lett	HCAPLUS
Bolton, R	1988		2491	J Chem Soc, Perkin T	HCAPLUS
Bonnett, R	1974		962	J Chem Soc, Perkin T	HCAPLUS
Borchardt, R	1982	25	263	J Med Chem	HCAPLUS
Bordwell, F	1991	56	3216	J Org Chem	HCAPLUS
Bosco, M	1991		657	J Chem Soc, Perkin T	HCAPLUS
Botta, M	1979	16	501	J Heterocycl Chem	HCAPLUS
Bourak, M	1990	31	447	Heterocycles	HCAPLUS
Bourdais, J	1974	9	269	Eur J Med Chem	HCAPLUS
Bourlot, A	1994		411	Synthesis	HCAPLUS
Bowman, R	1971		33	Chem Ind	HCAPLUS
Bowman, R	1972		1121	J Chem Soc, Perkin T	HCAPLUS
Bowman, W	1988	29	6657	Tetrahedron Lett	HCAPLUS
Brady, W	1989	54	2834	J Org Chem	HCAPLUS
Bramley, R	1973		1913	J Chem Soc, Perkin T	
Bravo, P	1970	100	652	Gazz Chim	HCAPLUS
Brehm, W	1949	71	3541	J Am Chem Soc	HCAPLUS
Brennan, M	1986	24	2879	Heterocycles	HCAPLUS
Brenner, M	1997	3	70	Chem Eur J	HCAPLUS
Brethereck, L	1961		2919	J Chem Soc	
Brewster, J	1953	7	99	Org React	
Brombridge, S	1998	41	1598	J Med Chem	
Brooke, G	1976		162	J Chem Soc, Perkin T	HCAPLUS
Browder, C	1993	34	6245	Tetrahedron Lett	HCAPLUS

Brown, D	1994	59	2447	J Org Chem	HCAPLUS
Brown, F	1948		847	J Chem Soc	HCAPLUS
Brown, F	1948		858	J Chem Soc	HCAPLUS
Brown, J	1952		3172	J Chem Soc	HCAPLUS
Brown, R	1955	77	3839	J Am Chem Soc	HCAPLUS
Brown, V	1969	6	539	J Heterocycl Chem	HCAPLUS
Bruce, J	1959		2366	J Chem Soc	HCAPLUS
Bruce, J	1962		1514	J Chem Soc	HCAPLUS
Bruche, L	1983	48	2772	J Org Chem	HCAPLUS
Buechi, G	1977	42	1784	J Org Chem	HCAPLUS
Bunnett, J	1973	5	12	Org Synth, Coll	
Burchardt, O	1969	23	2149	Acta Chem Scand	
Burr, G	1924	46	1224	J Am Chem Soc	HCAPLUS
Burton, H	1949		78	J Chem Soc	HCAPLUS
Buttery, C	1993		1425	J Chem Soc, Perkin T	HCAPLUS
Buttery, C	1991		315	Synlett	HCAPLUS
Buu-Hoi, N	1971		2606	J Chem Soc C	HCAPLUS
Buu-Hoi, N	1950	15	131	J Org Chem	HCAPLUS
Buzas, A	1977		129	Synthesis	HCAPLUS
Buzas, A	1989		458	Synthesis	HCAPLUS
Bu'Lock, J	1951		712	J Chem Soc	HCAPLUS
Cacchi, S	1994	475	289	J Organomet Chem	HCAPLUS
Cacchi, S	1997		1363	Synlett	HCAPLUS
Caddick, S	1996		675	J Chem Soc, Perkin T	HCAPLUS
Caddick, S	1992		805	Synlett	HCAPLUS
Caddick, S	1997	38	6249	Tetrahedron Lett	HCAPLUS
Cadogan, J	1965		4831	J Chem Soc	HCAPLUS
Cairncross, A	1970	92	3187	J Am Chem Soc	
Calo, V	1972		2567	J Chem Soc, Perkin T	HCAPLUS
Campaigne, E	1959	24	478	J Org Chem	HCAPLUS
Canas-Rodriguez, A	1972	15	762	J Med Chem	HCAPLUS
Cannon, J	1990	27	2093	J Heterocycl Chem	HCAPLUS
Cannon, J	1984	27	386	J Med Chem	HCAPLUS
Canoira, L	1985	22	1511	J Heterocycl Chem	HCAPLUS
Capon, B	1989	111	5346	J Am Chem Soc	HCAPLUS
Capuano, L	1986	119	2069	Chem Ber	HCAPLUS
Capuano, L	1988	121	2259	Chem Ber	HCAPLUS
Cardwell, K	1988	110	2242	J Am Chem Soc	HCAPLUS
Carmona, C	1995		331	J Chem Soc, Perkin T	HCAPLUS
Carpenter, J	1993	58	1607	J Org Chem	HCAPLUS
Carrera, G	1994		93	Synlett	HCAPLUS
Casini, G	1964	42	1235	Can J Chem	
Casnati, G	1974		754	J Chem Soc, Perkin T	HCAPLUS
Casnati, G	1969		2485	Tetrahedron Lett	HCAPLUS
Casnati, G	1972		5277	Tetrahedron Lett	HCAPLUS
Castro, C	1966	31	4071	J Org Chem	HCAPLUS
Castro, J	1994	37	3023	J Med Chem	HCAPLUS
Catalan, J	1984	106	421	J Am Chem Soc	HCAPLUS
Caubere, C	1994	50	13433	Tetrahedron	HCAPLUS
Caubere, C	1993	34	6889	Tetrahedron Lett	HCAPLUS
Chakrabarti, R	1990	29	737	Indian J Chem	
Challis, B	1972		1111	J Chem Soc, Perkin T	HCAPLUS
Challis, B	1975		1209	J Chem Soc, Perkin T	HCAPLUS
Challis, B	1975		1822	J Chem Soc, Perkin T	HCAPLUS
Challis, B	1977		281	J Chem Soc, Perkin T	HCAPLUS
Chan, A	1989	30	6483	Tetrahedron Lett	HCAPLUS
Chen, C	1997	62	2676	J Org Chem	HCAPLUS
Chen, D	1996	37	4467	Tetrahedron Lett	HCAPLUS
Chen, H	1989	30	4795	Tetrahedron Lett	HCAPLUS
Cheng, A	1982	47	5258	J Org Chem	HCAPLUS
Chien, C	1986	34	1493	Chem Pharm Bull	HCAPLUS
Chioccara, F	1987	17	1815	Synth Commun	HCAPLUS
Cho, C	1998		995	Chem Commun	HCAPLUS

Chu, L	1997	38	3871	Tetrahedron Lett	HCAPLUS
Chuang, C	1994	24	1493	Synth Commun	HCAPLUS
Chuang, C	1994	35	1283	Tetrahedron Lett	HCAPLUS
Chupina, L	1984		372	Chem Heterocycl Comp	
Chupina, L	1984		466	Khim Geterotsikl Soe	HCAPLUS
Church, N	1995	36	151	Tetrahedron Lett	HCAPLUS
Ciattini, P	1994	35	2405	Tetrahedron Lett	HCAPLUS
Cipiciani, A	1982		523	J Chem Soc, Perkin T	HCAPLUS
Cipiciani, A	1976	32	2595	Tetrahedron	HCAPLUS
Clark, A	1994		41	J Chem Soc, Chem Com	HCAPLUS
Clark, B	1997	27	4223	Synth Commun	HCAPLUS
Clark, R	1984	22	195	Heterocycles	HCAPLUS
Clark, R	1985	22	121	J Heterocycl Chem	HCAPLUS
Clark, R	1991		871	Synthesis	HCAPLUS
Coates, R	1977	99	2355	J Am Chem Soc	HCAPLUS
Coe, J	1996	37	6045	Tetrahedron Lett	HCAPLUS
Cohen, L	1960	82	2184	J Am Chem Soc	HCAPLUS
Collini, M	1997	38	7963	Tetrahedron Lett	HCAPLUS
Colonna, M	1981		628	J Chem Soc, Perkin T	HCAPLUS
Colonna, M	1982		455	J Chem Soc, Perkin T	HCAPLUS
Comber, M	1992		731	Synthesis	HCAPLUS
Comins, D	1987	52	104	J Org Chem	HCAPLUS
Comins, D	1989	30	4337	Tetrahedron Lett	HCAPLUS
Conn, R	1990	55	2908	J Org Chem	HCAPLUS
Conway, S	1990	30	627	Heterocycles	HCAPLUS
Conway, S	1992	22	2987	Synth Commun	HCAPLUS
Cook, A	1944		486	J Chem Soc	HCAPLUS
Cooper, M	1981		3008	J Chem Soc, Perkin T	HCAPLUS
Cooper, M	1996	37	4283	Tetrahedron Lett	HCAPLUS
Corey, E	1981	103	5599	J Am Chem Soc	HCAPLUS
Coutts, R	1970	48	3747	Can J Chem	HCAPLUS
Couture, A	1993		2463	J Chem Soc, Perkin T	HCAPLUS
Crenshaw, M	1984	21	623	J Heterocycl Chem	HCAPLUS
Crestini, C	1994	24	2835	Synth Commun	HCAPLUS
Cromartie, R	1953		3525	J Chem Soc	HCAPLUS
Cross, P	1986	29	342	J Med Chem	HCAPLUS
Crotti, C	1991	87	2811	J Chem Soc, Faraday	HCAPLUS
Da Settimo, A	1967	97	1304	Gazz Chim	HCAPLUS
Da Settimo, A	1970	35	2546	J Org Chem	HCAPLUS
Da Settimo, A	1965	21	1923	Tetrahedron	HCAPLUS
Daisley, R	1983	15	278	Org Prep Proc Int	HCAPLUS
Dallacker, F	1986	110	405	Chem-Ztg	HCAPLUS
Dalton, L	1968	21	2053	Aust J Chem	HCAPLUS
Danishefsky, S	1984	25	3159	Tetrahedron Lett	HCAPLUS
David, S	1964		101	Bull Soc Chim Fr	HCAPLUS
Davidson, R	1984		88	J Chem Res S	HCAPLUS
De Angelis, F	1977		335	Synthesis	HCAPLUS
De Rosa, M	1978	43	2639	J Org Chem	HCAPLUS
De Rosa, M	1981	46	2054	J Org Chem	HCAPLUS
Deberly, A	1971		3049	Tetrahedron Lett	HCAPLUS
Decodts, G	1970	26	3313	Tetrahedron	HCAPLUS
Delimoge, I	1991	28	1525	J Heterocycl Chem	HCAPLUS
Dellar, G	1981		1679	J Chem Soc, Perkin T	HCAPLUS
Desarbre, E	1996	52	2983	Tetrahedron	HCAPLUS
Dhanak, D	1986		2181	J Chem Soc, Perkin T	HCAPLUS
Dhanak, D	1985	26	2017	Tetrahedron Lett	HCAPLUS
Dickens, M	1992		323	J Chem Soc, Perkin T	HCAPLUS
Diels, O	1934	511	168	Justus Liebigs Ann C	HCAPLUS
Dillard, R	1996	39	5119	J Med Chem	HCAPLUS
Dillard, R	1996	26	5137	J Med Chem	
Dittman, K	1985	318	340	Arch Pharm	
Dmitrienko, G	1990	31	3681	Tetrahedron Lett	HCAPLUS
Dobbs, A	1995	36	4857	Tetrahedron Lett	HCAPLUS

Dobbs, A	1997	38	5379	Tetrahedron Lett	HCAPLUS
Dobson, D	1992		79	Synlett	HCAPLUS
Dobson, D	1991	21	611	Synth Commun	HCAPLUS
Doepp, H	1994	E6b2	546	Houben-Weyl	
Doi, K	1996	42	113	Heterocycles	HCAPLUS
Dolby, L	1966	3	124	J Heterocycl Chem	HCAPLUS
Dolby, L	1965	30	1550	J Org Chem	HCAPLUS
Dome, M	1975		576	Bull Soc Chim Fr	HCAPLUS
Domschke, G	1959	92	3244	Chem Ber	HCAPLUS
Domschke, G	1966	99	939	Chem Ber	HCAPLUS
Domschke, G	1969	311	807	J Prakt Chem	HCAPLUS
Donald, B	1975		1446	J Chem Soc, Perkin T	
Dong, Y	1997	62	6464	J Org Chem	HCAPLUS
Douglas, A	1978	100	6463	J Am Chem Soc	HCAPLUS
Douglas, A	1979	101	5676	J Am Chem Soc	HCAPLUS
Doyle, M	1988	53	1017	J Org Chem	HCAPLUS
Draheim, S	1996	39	5159	J Med Chem	HCAPLUS
Dua, R	1992	33	29	Tetrahedron Lett	HCAPLUS
Dubovitskii, S	1996	37	5207	Tetrahedron Lett	HCAPLUS
Eberle, M	1973	29	4045	Tetrahedron	HCAPLUS
Echavarren, A	1988	110	1557	J Am Chem Soc	HCAPLUS
Edwards, M	1986	42	3723	Tetrahedron	HCAPLUS
Eitel, M	1989		364	Synthesis	HCAPLUS
El-Rayyes, N	1973	315	295	J Prakt Chem	HCAPLUS
Elliott, I	1964	29	2438	J Org Chem	HCAPLUS
Endler, A	1963	4	657	Org Synth, Coll	
Engler, T	1997	38	6135	Tetrahedron Lett	HCAPLUS
Entzeroth, M	1983		226	Liebigs Ann Chem	HCAPLUS
Epling, G	1991		347	Synlett	HCAPLUS
Erickson, K	1981	11	253	Synth Commun	HCAPLUS
Eryshev, B	1980		158	Chem Heterocycl Comp	
Eryshev, B	1980		216	Khim Geterotsikl Soe	HCAPLUS
Etienne, A	1948		651	Bull Soc Chim Fr	HCAPLUS
Etienne, A	1954		743	Bull Soc Chim Fr	HCAPLUS
Etienne, A	1954		748	Bull Soc Chim Fr	HCAPLUS
Etkin, N	1990	55	1093	J Org Chem	HCAPLUS
Evans, D	1973	26	2555	Aust J Chem	HCAPLUS
Evans, D	1979	44	497	J Org Chem	HCAPLUS
Eyley, S	1985	26	4649	Tetrahedron Lett	HCAPLUS
Eyley, S	1988	29	2997	Tetrahedron Lett	HCAPLUS
Ezquerra, J	1996	61	5804	J Org Chem	HCAPLUS
Ezquerra, J	1997	53	8237	Tetrahedron	HCAPLUS
Fagnola, M	1997	38	2307	Tetrahedron Lett	HCAPLUS
Fatum, T	1994	38	1619	Heterocycles	HCAPLUS
Feldman, K	1996	61	5440	J Org Chem	HCAPLUS
Feldman, P	1986		735	Synthesis	HCAPLUS
Fessenden, R	1961	26	4638	J Org Chem	HCAPLUS
Fisher, L	1995	60	6224	J Org Chem	HCAPLUS
Fishwick, C	1991	32	685	Heterocycles	HCAPLUS
Flaugh, M	1979	22	63	J Med Chem	HCAPLUS
Flaugh, M	1988	31	1746	J Med Chem	HCAPLUS
Fleming, I	1979		827	J Chem Soc, Perkin T	HCAPLUS
Fleming, I	1979		829	J Chem Soc, Perkin T	HCAPLUS
Flitsch, W	1985		1398	Liebigs Ann Chem	HCAPLUS
Flitsch, W	1985		1413	Liebigs Ann Chem	HCAPLUS
Flitsch, W	1989	30	1633	Tetrahedron Lett	HCAPLUS
Fonatnan, A	1966	96	1301	Gazz Chim	
Fonatnan, A	1966	96	1301	Gazz Chim	
Forbes, I	1996	39	4966	J Med Chem	HCAPLUS
Foresti, E	1995	121	151	Gazz Chim	
Frank, W	1978	43	2947	J Org Chem	HCAPLUS
Franklin, C	1963		1335	J Chem Soc	HCAPLUS
Freter, K	1967	45	2628	Can J Chem	HCAPLUS

Freter, K	1972	37	2010	J Org Chem	HCAPLUS
Freter, K	1975	40	2525	J Org Chem	HCAPLUS
Freter, K	1976		241	Justus Liebigs Ann C	HCAPLUS
Freter, K	1978		1357	Justus Liebigs Ann C	HCAPLUS
Frick, U	1984		929	Synthesis	HCAPLUS
Friedman, H	1980	12	297	Org Prep Proc Int	HCAPLUS
Fritz, H	1963	28	1384	J Org Chem	HCAPLUS
Fryer, R	1967	32	3798	J Org Chem	HCAPLUS
Fuerstner, A	1996	35	2442	Angew Chem Int Ed	
Fuerstner, A	1994	59	5215	J Org Chem	HCAPLUS
Fuerstner, A	1992	48	5991	Tetrahedron	HCAPLUS
Fuerstner, A	1995	51	773	Tetrahedron	HCAPLUS
Fuhrer, W	1979	44	1133	J Org Chem	HCAPLUS
Fuji, M	1992	40	2338	Chem Pharm Bull	HCAPLUS
Fuji, M	1992	40	2344	Chem Pharm Bull	HCAPLUS
Fuji, M	1992	40	2353	Chem Pharm Bull	HCAPLUS
Fujita, M	1983	24	4573	Tetrahedron Lett	HCAPLUS
Fujiwara, J	1983	105	7177	J Am Chem Soc	HCAPLUS
Fukuda, Y	1997	45	2303	Heterocycles	HCAPLUS
Fukuyama, T	1994	116	3127	J Am Chem Soc	HCAPLUS
Gabriel, S	1923	56	104	Ber Dtsch Chem Ges	
Gale, D	1974	27	1295	Aust J Chem	HCAPLUS
Gall, W	1955	20	1538	J Org Chem	HCAPLUS
Gallagher, G	1985	28	1533	J Med Chem	HCAPLUS
Galons, H	1981	18	561	J Heterocycl Chem	HCAPLUS
Galun, A	1979	16	641	J Heterocycl Chem	HCAPLUS
Gan, T	1997	38	1301	Tetrahedron Lett	HCAPLUS
Ganesan, A	1993	34	439	Tetrahedron Lett	HCAPLUS
Garcia, E	1974	11	219	J Heterocycl Chem	HCAPLUS
Garden, S	1998	28	1679	Synth Commun	HCAPLUS
Gartz, J	1985	40	356	Pharmazie	HCAPLUS
Gassman, P	1974	96	5495	J Am Chem Soc	HCAPLUS
Gassman, P	1974	96	5508	J Am Chem Soc	HCAPLUS
Gassman, P	1974	96	5512	J Am Chem Soc	HCAPLUS
Gassman, P	1974		201	J Chem Soc, Chem Com	HCAPLUS
Gassman, P	1977	42	1340	J Org Chem	HCAPLUS
Gassman, P	1977	42	3240	J Org Chem	HCAPLUS
Gassman, P	1984	49	717	J Org Chem	HCAPLUS
Gassman, P	1988	6	601	Org Synth, Coll	
Gaudion, W	1947		1631	J Chem Soc	HCAPLUS
Geiger, S	1968		390	Bull Soc Chim Fr	HCAPLUS
Gelmi, M	1993		969	J Chem Soc, Perkin T	HCAPLUS
Germain, C	1976	13	1209	J Heterocycl Chem	HCAPLUS
Gharagozloo, P	1998	63	1974	J Org Chem	HCAPLUS
Gharpure, M	1991		1079	Synthesis	HCAPLUS
Giethlen, B	1997	38	8483	Tetrahedron Lett	HCAPLUS
Gilchrist, T	1983		1283	J Chem Soc, Perkin T	HCAPLUS
Gill, U	1991	417	313	J Organomet Chem	HCAPLUS
Gillespie, R	1979		50	J Chem Soc, Chem Com	HCAPLUS
Gilow, H	1991	28	1025	J Heterocycl Chem	HCAPLUS
Gilow, H	1986	27	4689	Tetrahedron Lett	HCAPLUS
Giovannini, E	1948	31	1375	Helv Chim Acta	HCAPLUS
Girke, W	1979	112	1	Chem Ber	HCAPLUS
Glenn, R	1995	38	3566	J Med Chem	
Gmeiner, P	1996		1196	Synthesis	HCAPLUS
Gonzales-Rosende, E	1988	18	1669	Synth Commun	
Gonzalez, A	1983		212	Synthesis	HCAPLUS
Goti, A	1994	35	6567	Tetrahedron Lett	HCAPLUS
Gourdoupis, C	1994	24	1137	Synth Commun	HCAPLUS
Gowan, M	1997		1312	Synlett	HCAPLUS
Graham, J	1992	48	167	Tetrahedron	HCAPLUS
Graham, S	1990	33	749	J Med Chem	HCAPLUS
Grandberg, I	1984				HCAPLUS

Grandberg, I	1973	9	31	Chem Heterocycl Comp	
Grandberg, I	1974	10	501	Chem Heterocycl Comp	
Grandberg, I	1983	19	2439	Zh Org Khim	HCAPLUS
Grant, M	1960	82	2742	J Am Chem Soc	HCAPLUS
Gray, A	1957	79	3555	J Am Chem Soc	
Gray, A	1960	25	1939	J Org Chem	HCAPLUS
Gray, M	1993		281	Synlett	HCAPLUS
Grehn, L	1984	23	296	Angew Chem Int Ed	
Greuter, H	1974	57	281	Helv Chim Acta	HCAPLUS
Gribble, G	1994		145	Contemp Org Synth	HCAPLUS
Gribble, G	1974	96	7813	J Am Chem Soc	
Gribble, G	1985	50	5900	J Org Chem	HCAPLUS
Gribble, G	1989	54	3264	J Org Chem	HCAPLUS
Gribble, G	1992	22	2129	Synth Commun	HCAPLUS
Gribble, G	1977		859	Synthesis	HCAPLUS
Gribble, G	1988	44	3195	Tetrahedron	HCAPLUS
Gribble, G	1987	28	5259	Tetrahedron Lett	HCAPLUS
Gridnev, I	1993	58	5351	J Org Chem	HCAPLUS
Griffen, E	1995	60	1484	J Org Chem	HCAPLUS
Grob, C	1961	44	1748	Helv Chim Acta	HCAPLUS
Gron, C	1984	38	709	Acta Chem Scand	
Gruda, I	1972	50	18	Can J Chem	HCAPLUS
Guan, X	1994	35	3013	Tetrahedron Lett	HCAPLUS
Gubin, J	1993	36	1425	J Med Chem	HCAPLUS
Gudjons, J	1976	109	3282	Chem Ber	HCAPLUS
Guida, W	1980	45	3172	J Org Chem	HCAPLUS
Guillaume, J	1987	22	33	Eur J Med Chem	HCAPLUS
Gut, I	1994	33	1153	Angew Chem Int Ed	
Haber, M	1991	47	1925	Tetrahedron	HCAPLUS
Haddleseyd, D	1964		5269	J Chem Soc	
Haefliger, W	1984	25	285	Tetrahedron Lett	HCAPLUS
Haefliger, W	1984	25	289	Tetrahedron Lett	HCAPLUS
Hahn, G	1934	67	2031	Chem Ber	
Hall, J	1980		360	J Chem Res S	
Hamabuchi, S	1991	32	443	Heterocycles	HCAPLUS
Hamana, M	1967	15	363	Chem Pharm Bull	HCAPLUS
Hamel, P	1994	59	6372	J Org Chem	HCAPLUS
Harley-Mason, J	1954		1165	J Chem Soc	HCAPLUS
Harman, R	1972	9	1191	J Heterocycl Chem	
Harmon, R	1973	38	11	J Org Chem	HCAPLUS
Harrington, P	1987	109	4335	J Am Chem Soc	HCAPLUS
Harrington, P	1984	49	2657	J Org Chem	HCAPLUS
Harrington, P	1996		1047	Synlett	HCAPLUS
Harrington, P	1997	38	5949	Tetrahedron Lett	HCAPLUS
Harris, R	1970	23	1199	Aust J Chem	HCAPLUS
Harris, R	1969		4465	Tetrahedron Lett	HCAPLUS
Harrison, C	1995		1131	J Chem Soc, Perkin T	HCAPLUS
Harrison, C	1993	34	8527	Tetrahedron Lett	HCAPLUS
Hart, G	1961		4267	J Chem Soc	HCAPLUS
Hartke, K	1988	44	3261	Tetrahedron	HCAPLUS
Hasan, I	1981	46	157	J Org Chem	HCAPLUS
Hatanaka, N	1986	24	1963	Heterocycles	HCAPLUS
Hatanaka, N	1986	27	3169	Tetrahedron Lett	HCAPLUS
Hayakawa, K	1986	27	1837	Tetrahedron Lett	HCAPLUS
Heacock, R	1969	10	43	Adv Heterocycl Chem	HCAPLUS
Heacock, R	1963	89	1825	J Am Chem Soc	
Heaney, H	1988		1161	J Chem Soc, Chem Com	HCAPLUS
Heaney, H	1973		499	J Chem Soc, Perkin T	HCAPLUS
Heaney, H	1988	6	104	Org Synth, Coll	
Hegedus, L	1988	27	1113	Angew Chem Int Ed	
Hegedus, L	1978	100	5800	J Am Chem Soc	HCAPLUS
Hegedus, L	1981	46	2215	J Org Chem	HCAPLUS
Hegedus, L	1989	54	4141	J Org Chem	HCAPLUS

Heinzelman, R	1960	25	1548	J Org Chem	HCAPLUS
Hellman, H	1965	98	638	Chem Ber	
Hemetsberger, H	1969	100	1599	Monatsh Chem	HCAPLUS
Hemetsberger, H	1970	101	161	Monatsh Chem	HCAPLUS
Henegar, K	1996	43	1471	Heterocycles	HCAPLUS
Hengartner, U	1979	44	3741	J Org Chem	HCAPLUS
Hengartner, U	1979	44	3748	J Org Chem	HCAPLUS
Henmi, T	1997	44	157	Heterocycles	HCAPLUS
Henn, L	1986		1113	J Chem Soc, Perkin T	
Henry, K	1993		510	J Chem Soc, Chem Com	HCAPLUS
Hermkens, P	1990	46	833	Tetrahedron	HCAPLUS
Hersloef, M	1987	28	3423	Tetrahedron Lett	
Hewawasam, P	1994	35	7303	Tetrahedron Lett	HCAPLUS
Hewlins, M	1981		2906	J Chem Soc, Perkin T	HCAPLUS
Hibino, S	1990	30	271	Heterocycles	HCAPLUS
Hickey, D	1987		921	J Chem Soc, Perkin T	HCAPLUS
Hillard, J	1974	11	369	J Heterocycl Chem	HCAPLUS
Himbert, G	1990	29	86	Angew Chem Int Ed	
Hinman, R	1962	84	2534	J Am Chem Soc	HCAPLUS
Hinman, R	1964	86	3796	J Am Chem Soc	HCAPLUS
Hinman, R	1964	29	1206	J Org Chem	HCAPLUS
Hinman, R	1964	29	2431	J Org Chem	HCAPLUS
Hino, T	1975	23	2990	Chem Pharm Bull	HCAPLUS
Hino, T	1977	25	354	Chem Pharm Bull	HCAPLUS
Hino, T	1982	30	2349	Chem Pharm Bull	HCAPLUS
Hino, T	1990	38	2632	Chem Pharm Bull	HCAPLUS
Hino, T	1974	2	565	Heterocycles	HCAPLUS
Hino, T	1976		745	J Chem Soc, Perkin T	HCAPLUS
Hirao, K	1995	36	6243	Tetrahedron Lett	HCAPLUS
Hiremath, S	1981	19	767	Indian J Chem	
Hlasla, D	1989	29	849	Heterocycles	
Hocker, J	1975		334	Synthesis	HCAPLUS
Hodson, H	1957		3546	J Chem Soc	HCAPLUS
Hodson, H	1994	50	1899	Tetrahedron	HCAPLUS
Hofmann, K	1982		282	Liebigs Ann Chem	HCAPLUS
Holins, R	1979	16	993	J Heterocycl Chem	
Holzapfel, C	1987	17	1349	Synth Commun	HCAPLUS
Hooper, M	1972		1607	J Chem Soc, Perkin T	HCAPLUS
Horwell, D	1994	59	4418	J Org Chem	HCAPLUS
Hosmane, R	1973		2450	J Chem Soc, Perkin T	HCAPLUS
Houghton, E	1969		595	J Chem Soc C	HCAPLUS
Houlihan, W	1981	46	4511	J Org Chem	HCAPLUS
Howe, E	1945	67	38	J Am Chem Soc	HCAPLUS
Hudkins, R	1995	60	6218	J Org Chem	HCAPLUS
Hudson, C	1967	20	1699	Aust J Chem	HCAPLUS
Huegel, H	1983		935	Synthesis	HCAPLUS
Huffmann, W	1983	26	933	J Med Chem	
Hughes, D	1993	58	228	J Org Chem	HCAPLUS
Hughes, D	1993	25	609	Org Prep Proced Int	
Huntress, E	1956	78	419	J Am Chem Soc	HCAPLUS
Hutchins, S	1996	37	4869	Tetrahedron Lett	HCAPLUS
Huynh-Dinh, T	1985	26	4443	Tetrahedron Lett	
Hwu, J	1994	59	1577	J Org Chem	HCAPLUS
Ichikawa, J	1997		1537	Chem Commun	HCAPLUS
Iida, H	1980	45	2938	J Org Chem	HCAPLUS
Ijaz, A	1990		116	J Chem Res S	HCAPLUS
Ijaz, A	1989	1	364	Sci Int	HCAPLUS
Ikeda, M	1976		2587	J Chem Soc, Perkin T	HCAPLUS
Illi, V	1979		136	Synthesis	HCAPLUS
Illi, V	1979		387	Synthesis	HCAPLUS
Illy, H	1968	33	4283	J Org Chem	HCAPLUS
Inada, A	1980		1287	Chem Lett	HCAPLUS
Inada, S	1976	49	833	Bull Chem Soc	HCAPLUS

Inagaki, S	1990		179	J Chem Soc, Perkin T	HCAPLUS
Inanaga, J	1991	32	1737	Tetrahedron Lett	HCAPLUS
Ipach, I	1979	112	2565	Chem Ber	HCAPLUS
Iqbal, Z	1988	29	2577	Tetrahedron Lett	HCAPLUS
Iritani, K	1988	29	1799	Tetrahedron Lett	HCAPLUS
Ishibashi, H	1986	23	1163	J Heterocycl Chem	HCAPLUS
Ishibashi, H	1993	23	2381	Synth Commun	HCAPLUS
Ishii, H	1981	14	275	Acc Chem Res	HCAPLUS
Ishii, H	1990	38	597	Chem Pharm Bull	HCAPLUS
Ishii, H	1973	29	1991	Tetrahedron	HCAPLUS
Ishikura, M	1996		2409	Chem Commun	HCAPLUS
Ishikura, M	1990	31	2091	Heterocycles	HCAPLUS
Ishikura, M	1995	41	1385	Heterocycles	HCAPLUS
Ishikura, M	1995	41	2437	Heterocycles	HCAPLUS
Ishikura, M	1996	43	1591	Heterocycles	HCAPLUS
Ishikura, M	1997	45	2309	Heterocycles	HCAPLUS
Ishikura, M	1989		135	J Chem Soc, Chem Com	HCAPLUS
Ishikura, M	1989		727	J Chem Soc, Chem Com	HCAPLUS
Ishikura, M	1991		1219	J Chem Soc, Chem Com	HCAPLUS
Ishikura, M	1987	24	377	J Heterocycl Chem	
Ishikura, M	1984		936	Synthesis	HCAPLUS
Ishikura, M	1992	33	6849	Tetrahedron Lett	HCAPLUS
Ishizumi, K	1967	15	863	Chem Pharm Bull	HCAPLUS
Itahara, I	1983		1361	J Chem Soc, Perkin T	
Itahara, T	1982	55	3861	Bull Chem Soc	HCAPLUS
Itahara, T	1982		1151	Chem Lett	HCAPLUS
Itahara, T	1979		151	Synthesis	HCAPLUS
Itahara, T	1984		236	Synthesis	HCAPLUS
Ito, Y	1978	51	1186	Bull Chem Soc	HCAPLUS
Ito, Y	1984	57	73	Bull Chem Soc	HCAPLUS
Ito, Y	1979	44	2030	J Org Chem	HCAPLUS
Iwao, M	1992	34	1031	Heterocycles	HCAPLUS
Iwao, M	1993	36	29	Heterocycles	HCAPLUS
Iwao, M	1997	53	51	Tetrahedron	HCAPLUS
Iwao, M	1995	36	5929	Tetrahedron Lett	HCAPLUS
Iwasaki, M	1991	56	1922	J Org Chem	HCAPLUS
Iyer, R	1973		872	J Chem Soc, Perkin T	HCAPLUS
Izumi, T	1992	29	1085	J Heterocycl Chem	HCAPLUS
Izumi, T	1992	29	1625	J Heterocycl Chem	HCAPLUS
Izumi, T	1992	29	899	J Heterocycl Chem	HCAPLUS
Jackson, A	1965		1652	Chem Ind	HCAPLUS
Jackson, A	1969		2738	J Chem Soc C	HCAPLUS
Jackson, A	1987		1215	J Chem Soc, Perkin T	HCAPLUS
Jackson, A	1987		1483	J Chem Soc, Perkin T	HCAPLUS
Jackson, A	1968	24	6119	Tetrahedron	HCAPLUS
Jackson, P	1990		2156	J Chem Soc, Perkin T	HCAPLUS
Jackson, P	1992	48	7447	Tetrahedron	HCAPLUS
James, P	1963	4	539	Org Synth, Coll	
Jansen, A	1964		5573	J Chem Soc	HCAPLUS
Jardine, R	1965	43	1293	Can J Chem	HCAPLUS
Jawdosiuk, M	1978	56	218	Can J Chem	HCAPLUS
Jeannin, L	1995	36	2057	Tetrahedron Lett	HCAPLUS
Jeschke, T	1993	34	6471	Tetrahedron Lett	HCAPLUS
Johnson, A	1966		819	Tetrahedron Lett	HCAPLUS
Johnson, D	1986	24	2127	Heterocycles	HCAPLUS
Johnson, H	1963	28	2794	J Org Chem	HCAPLUS
Johnson, J	1945	67	423	J Am Chem Soc	HCAPLUS
Johnson, W	1960	8	5143	J Am Chem Soc	
Jones, C	1972	37	3622	J Org Chem	HCAPLUS
Jones, C	1972	37	3624	J Org Chem	HCAPLUS
Jones, G	1993	58	5558	J Org Chem	HCAPLUS
Jones, K	1992		1766	J Chem Soc, Chem Com	HCAPLUS
Jones, K	1989	30	2657	Tetrahedron Lett	HCAPLUS

Jones, R	1984		2541	J Chem Soc, Perkin T	HCAPLUS
Jones, R	1980	45	4515	J Org Chem	HCAPLUS
Jones, R	1981	37	1597	Tetrahedron	HCAPLUS
Joseph, B	1996	26	3289	Synth Commun	HCAPLUS
Joshi, K	1980	111	1343	Monatsh Chem	HCAPLUS
Julia, M	1960		741	Bull Soc Chim Fr	HCAPLUS
Julia, M	1966		2291	Bull Soc Chim Fr	HCAPLUS
Julia, M	1973		1424	Bull Soc Chim Fr	HCAPLUS
Julia, M	1973		2046	Bull Soc Chim Fr	HCAPLUS
Julian, P	1933	55	2105	J Am Chem Soc	HCAPLUS
Julie, M	1966		1335	Bull Soc Chim Fr	
Junjappa, H	1975		798	Synthesis	HCAPLUS
Kalir, A	1966	4	155	Isr J Chem	HCAPLUS
Kametani, T	1980	14	277	Heterocycles	HCAPLUS
Kanaoka, T	1971	36	458	J Org Chem	
Kaneko, C	1980	28	1157	Chem Pharm Bull	HCAPLUS
Kano, S	1981	46	2979	J Org Chem	HCAPLUS
Kasahara, A	1986	59	927	Bull Chem Soc	HCAPLUS
Kasahara, A	1988		50	Chem Ind	HCAPLUS
Kasahara, A	1987	24	1555	J Heterocycl Chem	HCAPLUS
Kasahara, A	1989	26	1405	J Heterocycl Chem	HCAPLUS
Kashimura, M	1983	31	2892	Chem Pharm Bull	HCAPLUS
Kasparek, S	1966	44	2805	Can J Chem	HCAPLUS
Katritzky, A	1987	26	1333	Heterocycles	HCAPLUS
Katritzky, A	1990	30	407	Heterocycles	HCAPLUS
Katritzky, A	1986	108	6808	J Am Chem Soc	HCAPLUS
Katritzky, A	1987	24	641	J Heterocycl Chem	HCAPLUS
Katritzky, A	1989	26	829	J Heterocycl Chem	HCAPLUS
Katritzky, A	1990	55	3688	J Org Chem	HCAPLUS
Katritzky, A	1995	60	3401	J Org Chem	HCAPLUS
Katritzky, A	1997	62	4148	J Org Chem	HCAPLUS
Katritzky, A	1991	23	357	Org Prep Proced Int	HCAPLUS
Katritzky, A	1988	18	1151	Synth Commun	HCAPLUS
Katritzky, A	1995	25	539	Synth Commun	HCAPLUS
Katritzky, A	1993	49	2829	Tetrahedron	HCAPLUS
Katritzky, A	1985	26	5935	Tetrahedron Lett	HCAPLUS
Katz, A	1988	31	1244	J Med Chem	HCAPLUS
Kawasaki, I	1996	44	1831	Chem Pharm Bull	
Kawasaki, T	1991	32	221	Heterocycles	HCAPLUS
Kawasaki, T	1991		701	Synthesis	HCAPLUS
Kawase, M	1990	38	2939	Chem Pharm Bull	HCAPLUS
Kawase, M	1984		1401	J Chem Soc, Perkin T	HCAPLUS
Kawase, M	1987	24	1499	J Heterocycl Chem	HCAPLUS
Kawate, T	1997		761	Synlett	HCAPLUS
Keil, J	1990	31	4581	Tetrahedron Lett	HCAPLUS
Kelly, A	1966	44	2455	Can J Chem	HCAPLUS
Kempton, G	1965	300	169	J Prakt Chem	
Kende, A	1990	20	2133	Synth Commun	HCAPLUS
Keris, D	1987		1660	J Chem Soc, Chem Com	
Ketcha, D	1985	50	5451	J Org Chem	HCAPLUS
Ketcha, D	1989	54	4350	J Org Chem	HCAPLUS
Khan, M	1977	25	3110	Chem Pharm Bull	HCAPLUS
Khan, M	1970		85	J Chem Soc C	HCAPLUS
Khan, M	1978	15	913	J Heterocycl Chem	HCAPLUS
Khan, M	1979	16	1483	J Heterocycl Chem	HCAPLUS
Kiguchi, T	1989		778	Synthesis	HCAPLUS
Kikugawa, Y	1994	37	293	Heterocycles	HCAPLUS
Kikugawa, Y	1981		460	Synthesis	HCAPLUS
Kikugawa, Y	1981		461	Synthesis	HCAPLUS
Kim, G	1997	45	1979	Heterocycles	HCAPLUS
Kim, P	1981	18	1373	J Heterocycl Chem	HCAPLUS
Kirby, G	1965		381	Chem Commun	HCAPLUS
Kisaki, S	1974	22	2246	Chem Pharm Bull	HCAPLUS

Kline, T	1985	22	505	J Heterocycl Chem	HCAPLUS
Knittel, D	1985		186	Synthesis	HCAPLUS
Kobayashi, T	1964	20	2055	Tetrahedron	HCAPLUS
Kobayashi, Y	1974	39	1836	J Org Chem	HCAPLUS
Koerber-Ple, K	1994		759	Synlett	HCAPLUS
Kondo, Y	1996	42	105	Heterocycles	
Kondo, Y	1996	43	2741	Heterocycles	HCAPLUS
Kondo, Y	1995		1207	J Chem Soc, Perkin T	HCAPLUS
Kondo, Y	1996		2331	J Chem Soc, Perkin T	HCAPLUS
Kondo, Y	1997	62	6507	J Org Chem	HCAPLUS
Kondo, Y	1994	50	11803	Tetrahedron	HCAPLUS
Konopelski, J	1996		609	Synlett	HCAPLUS
Kornet, M	1980	45	30	J Org Chem	HCAPLUS
Kornfield, E	1951	16	806	J Org Chem	
Korte, F	1963	19	1423	Tetrahedron	HCAPLUS
Kosuge, T	1985	33	1414	Chem Pharm Bull	HCAPLUS
Kotsuki, H	1990	55	2969	J Org Chem	HCAPLUS
Kotsuki, H	1996	61	984	J Org Chem	HCAPLUS
Kotsuki, H	1996	37	3727	Tetrahedron Lett	HCAPLUS
Kozikowski, A	1980	14	55	Heterocycles	HCAPLUS
Kozikowski, A	1986	27	61	Isr J Chem	HCAPLUS
Kozikowski, A	1978		1076	J Chem Soc, Chem Com	HCAPLUS
Kozikowski, A	1980	45	3350	J Org Chem	HCAPLUS
Kozikowski, A	1985	26	4047	Tetrahedron Lett	HCAPLUS
Kozikowski, A	1991	32	3317	Tetrahedron Lett	HCAPLUS
Kraus, G	1983		1198	J Chem Soc, Chem Com	HCAPLUS
Kraus, G	1978		3195	Tetrahedron Lett	HCAPLUS
Kreher, R	1980	113	3675	Chem Ber	HCAPLUS
Krolski, M	1988	53	1170	J Org Chem	HCAPLUS
Kruse, L	1981	16	1119	Heterocycles	HCAPLUS
Kruse, L	1984	49	4761	J Org Chem	HCAPLUS
Kubo, A	1981	16	1441	Heterocycles	HCAPLUS
Kubo, A	1980		365	Synthesis	HCAPLUS
Kucklaender, U	1972	28	5251	Tetrahedron	HCAPLUS
Kuehm-Caubere, C	1997		2857	J Chem Soc, Perkin T	
Kuehm-Caubere, C	1997	40	1201	J Med Chem	HCAPLUS
Kuehn, H	1937	70	567	Chem Ber	
Kuehne, M	1976	41	2742	J Org Chem	HCAPLUS
Kumar, Y	1983	13	489	Synth Commun	HCAPLUS
Kurihara, T	1985	23	2221	Heterocycles	HCAPLUS
Kurihara, T	1987		396	Synthesis	HCAPLUS
Labadie, S	1994	59	4250	J Org Chem	HCAPLUS
Lalonde, J	1988	53	2323	J Org Chem	HCAPLUS
Lanzilotti, A	1979	44	4809	J Org Chem	HCAPLUS
Larock, R	1991	113	6689	J Am Chem Soc	HCAPLUS
Larock, R	1996	61	3584	J Org Chem	HCAPLUS
Larock, R	1984	25	4459	Tetrahedron Lett	HCAPLUS
Larock, R	1987	28	5291	Tetrahedron Lett	HCAPLUS
Lavilla, R	1997	25	169	Bioorg Chem	HCAPLUS
Lavilla, R	1991		842	Synthesis	HCAPLUS
Lavilla, R	1997	53	13959	Tetrahedron	HCAPLUS
Laws, A	1987		591	J Chem Soc, Perkin T	HCAPLUS
Le Corre, M	1985	41	5313	Tetrahedron	HCAPLUS
Lee, A	1995	32	1	J Heterocycl Chem	HCAPLUS
Leete, E	1953	31	775	Can J Chem	HCAPLUS
Leete, E	1959	81	6023	J Am Chem Soc	HCAPLUS
Leggetter, B	1960	38	1467	Can J Chem	HCAPLUS
Legters, J	1992	111	16	Recl Trav Chim Pays-	HCAPLUS
Levy, A	1978	43	4684	J Org Chem	HCAPLUS
Li, J	1988		73	Synthesis	HCAPLUS
Li, M	1994	35	6255	Tetrahedron Lett	HCAPLUS
Lim, M	1987	28	3775	Tetrahedron Lett	HCAPLUS
Littell, R	1970	92	3740	J Am Chem Soc	HCAPLUS

Littell, R	1973	38	1504	J Org Chem	HCAPLUS
Lloyd, D	1986	51	4294	J Org Chem	HCAPLUS
Lloyd, D	1983	24	4561	Tetrahedron Lett	HCAPLUS
Lo, Y	1980	17	1663	J Heterocycl Chem	HCAPLUS
Lora-Tamaya, M	1976	8	45	Org Prep Proc Int	
Lorenz, R	1965	30	2531	J Org Chem	HCAPLUS
Loudon, J	1960		3466	J Chem Soc	HCAPLUS
Love, B	1993	35	1259	Heterocycles	HCAPLUS
Love, B	1994	59	3219	J Org Chem	HCAPLUS
Macor, D	1993	23	65	Synth Commun	
Macor, J	1997		443	Chem Commun	HCAPLUS
Macor, J	1990	31	1497	Heterocycles	HCAPLUS
Macor, J	1989	54	4785	J Org Chem	HCAPLUS
Macor, J	1991	32	7195	Tetrahedron Lett	HCAPLUS
Madelung, W	1924	67	234	Ber Dtsch Chem Ges	
Maehr, H	1981	46	1752	J Org Chem	HCAPLUS
Maerky, M	1979	62	2129	Helv Chim Acta	HCAPLUS
Magnus, P	1984	17	35	Acc Chem Res	HCAPLUS
Magnus, P	1983	39	3725	Tetrahedron	HCAPLUS
Magnus, P	1998	39	4595	Tetrahedron Lett	HCAPLUS
Mahboobi, S	1988	71	2034	Helv Chim Acta	HCAPLUS
Majchrzak, M	1986		956	Synthesis	HCAPLUS
Majo, V	1996	61	6523	J Org Chem	HCAPLUS
Makisumi, Y	1976	24	770	Chem Pharm Bull	HCAPLUS
Makosza, M	1988		203	Liebigs Ann Chem	HCAPLUS
Makosza, M	1997		1805	Liebigs Annalen/Recu	HCAPLUS
Mali, R	1990	20	2041	Synth Commun	HCAPLUS
Mali, R	1984		862	Synthesis	HCAPLUS
Marchant, R	1951		1808	J Chem Soc	HCAPLUS
Marfat, A	1987	28	4027	Tetrahedron Lett	HCAPLUS
Marinelli, E	1982	23	2745	Tetrahedron Lett	HCAPLUS
Marinone, A	1983		0147	J Chem Res M	
Markgraf, J	1996	52	461	Tetrahedron	HCAPLUS
Martin, P	1984	67	1647	Helv Chim Acta	HCAPLUS
Martin, P	1988	71	344	Helv Chim Acta	HCAPLUS
Maruoka, K	1993	58	7638	J Org Chem	HCAPLUS
Marvel, C	1932	1	321	Org Synth, Coll	
Masters, R	1989	45	5955	Tetrahedron	
Matsumoto, M	1985	23	165	Heterocycles	HCAPLUS
Matsumoto, M	1986	24	1667	Heterocycles	HCAPLUS
Matsumoto, M	1986	24	2611	Heterocycles	HCAPLUS
Matsumoto, M	1986	24	3149	Heterocycles	HCAPLUS
Matsumoto, M	1986	24	3157	Heterocycles	HCAPLUS
Matsumoto, T	1981	45	2031	Agric Biol Chem	HCAPLUS
Mattock, G	1964	42	484	Can J Chem	
Mayer, J	1996	37	5633	Tetrahedron Lett	HCAPLUS
McKittrick, B	1990	27	2151	J Heterocycl Chem	HCAPLUS
Mehta, G	1978		374	Synthesis	HCAPLUS
Melhado, L	1983	48	5130	J Org Chem	HCAPLUS
Merlic, C	1990	391	C-23	J Organomet Chem	
Merlic, C	1997	38	7661	Tetrahedron Lett	HCAPLUS
Merour, J	1982		1053	Synthesis	HCAPLUS
Metlesics, W	1964	29	1621	J Org Chem	HCAPLUS
Miki, T	1996	37	7753	Tetrahedron Lett	
Miki, Y	1997	45	1143	Heterocycles	HCAPLUS
Miller, B	1980	102	4772	J Am Chem Soc	HCAPLUS
Miller, F	1978	43	3384	J Org Chem	HCAPLUS
Miller, F	1978	43	3388	J Org Chem	HCAPLUS
Mills, K	1981		636	J Chem Soc, Perkin T	HCAPLUS
Minato, A	1981	22	5319	Tetrahedron Lett	HCAPLUS
Misra, P	1989	30	3569	Tetrahedron Lett	HCAPLUS
Mistry, A	1986	27	1051	Tetrahedron Lett	HCAPLUS
Mitchell, G	1987		413	J Chem Soc, Perkin T	

Miyashita, K	1996		1261	J Chem Soc, Perkin T	HCAPLUS
Modi, S	1995	72	125	Org Synth	HCAPLUS
Modi, S	1990	46	5555	Tetrahedron	HCAPLUS
Moeckel, P	1966	6	342	Z Chem	HCAPLUS
Mohan, B	1985		188	Synthesis	HCAPLUS
Mohan, R	1996	37	3963	Tetrahedron Lett	HCAPLUS
Mohanakrishnan, A	1995	25	2407	Synth Commun	HCAPLUS
Monge, A	1991	26	179	Eur J Med Chem	HCAPLUS
Monge, A	1985	22	1445	J Heterocycl Chem	HCAPLUS
Monge, A	1984		160	Synthesis	HCAPLUS
Monti, S	1971	27	3331	Tetrahedron	HCAPLUS
Moody, C	1984		1333	J Chem Soc, Perkin T	HCAPLUS
Moody, C	1990		673	J Chem Soc, Perkin T	HCAPLUS
Moody, C	1993		2561	J Chem Soc, Perkin T	HCAPLUS
Moody, C	1989	30	4017	Tetrahedron Lett	HCAPLUS
Morales-Rios	1988	26	552	Magn Reson Chem	HCAPLUS
Mori, M	1978	9	391	Heterocycles	HCAPLUS
Mori, M	1977		1037	Tetrahedron Lett	HCAPLUS
Mori, M	1979		1133	Tetrahedron Lett	HCAPLUS
Moriarty, R	1988		1621	J Chem Soc, Chem Com	HCAPLUS
Moriarty, R	1988	7	660	Organometallics	HCAPLUS
Moriarty, R	1987	28	3071	Tetrahedron Lett	HCAPLUS
Moskal, J	1986	51	4131	J Org Chem	HCAPLUS
Mousseron-Canet, M	1967		1296	Bull Soc Chim Fr	HCAPLUS
Moyer, M	1986	51	5106	J Org Chem	HCAPLUS
Muchowski, J	1969	47	857	Can J Chem	HCAPLUS
Muchowski, J	1984	49	203	J Org Chem	HCAPLUS
Muchowski, J	1987	28	3453	Tetrahedron Lett	HCAPLUS
Mudry, C	1973	29	603	Tetrahedron	HCAPLUS
Murai, Y	1992	34	1017	Heterocycles	HCAPLUS
Murakami, Y	1985	33	4707	Chem Pharm Bull	HCAPLUS
Murakami, Y	1988	36	2023	Chem Pharm Bull	HCAPLUS
Murakami, Y	1993	41	1910	Chem Pharm Bull	HCAPLUS
Murakami, Y	1995	43	1281	Chem Pharm Bull	HCAPLUS
Murakami, Y	1997	45	1739	Chem Pharm Bull	HCAPLUS
Murakami, Y	1984	22	1211	Heterocycles	HCAPLUS
Murakami, Y	1985	23	201	Heterocycles	
Murakami, Y	1988	27	1855	Heterocycles	HCAPLUS
Murakami, Y	1989	30	2099	Tetrahedron Lett	HCAPLUS
Murase, M	1991	39	489	Chem Pharm Bull	HCAPLUS
Murase, M	1990	30	905	Heterocycles	HCAPLUS
Muratake, H	1998	46	400	Chem Pharm Bull	HCAPLUS
Muratake, H	1998	46	559	Chem Pharm Bull	HCAPLUS
Muratake, H	1989	29	771	Heterocycles	HCAPLUS
Muratake, H	1989	29	783	Heterocycles	HCAPLUS
Muratake, H	1990	31	683	Heterocycles	HCAPLUS
Muratake, H	1990	31	691	Heterocycles	HCAPLUS
Muratake, H	1987	28	2265	Tetrahedron Lett	HCAPLUS
Murphy, J	1997	38	7295	Tetrahedron Lett	HCAPLUS
Nagarajan, K	1981	20	672	Indian J Chem	
Nagarathnam, D	1992	29	953	J Heterocycl Chem	HCAPLUS
Nagarathnam, D	1992		743	Synthesis	HCAPLUS
Nagayoshi, T	1981	29	1920	Chem Pharm Bull	HCAPLUS
Nagayoshi, T	1977	6	1666	Heterocycles	HCAPLUS
Nagayoshi, Y	1984	32	3678	Chem Pharm Bull	
Nakagawa, K	1994	39	31	Heterocycles	HCAPLUS
Nakagawa, M	1990	30	451	Heterocycles	HCAPLUS
Nakatsuka, S	1987	26	65	Heterocycles	HCAPLUS
Nakatsuka, S	1986	27	4327	Tetrahedron Lett	HCAPLUS
Nakatsuka, S	1986	27	5735	Tetrahedron Lett	HCAPLUS
Nakatsuka, S	1987	28	3671	Tetrahedron Lett	HCAPLUS
Nakatsuka, S	1994	35	2699	Tetrahedron Lett	HCAPLUS
Narayanan, K	1990	31	3397	Tetrahedron Lett	HCAPLUS

Naruse, Y	1991	56	2256	J Org Chem	HCAPLUS
Naruse, Y	1995	60	8334	J Org Chem	HCAPLUS
Nechvatal, G	1982		467	J Chem Soc, Chem Com	HCAPLUS
Neidlein, R	1982	315	901	Arch Pharm	HCAPLUS
Neidlein, R	1980		971	Liebigs Ann Chem	HCAPLUS
Neidlein, R	1978		685	Synthesis	HCAPLUS
Neil, A	1953	75	1508	J Am Chem Soc	
Nettkoven, M	1995	36	1425	Tetrahedron Lett	
Nickisch, K	1980	113	2036	Chem Ber	HCAPLUS
Nimtz, M	1987		765	Liebigs Ann Chem	HCAPLUS
Nishio, T	1990	73	1719	Helv Chim Acta	HCAPLUS
Nishio, T			1567	J Chem Res M	
Nishio, T	1989		204	J Chem Res S	HCAPLUS
Nogrady, T	1969	47	1999	Can J Chem	HCAPLUS
Noland, W	1959	81	6010	J Am Chem Soc	HCAPLUS
Noland, W	1962	27	2250	J Org Chem	HCAPLUS
Noland, W	1963	28	2262	J Org Chem	HCAPLUS
Noland, W	1963	28	884	J Org Chem	HCAPLUS
Noland, W	1964	29	947	J Org Chem	HCAPLUS
Noland, W	1965	30	3457	J Org Chem	HCAPLUS
Noland, W	1966	31	345	J Org Chem	
Noland, W	1980	45	4582	J Org Chem	HCAPLUS
Noland, W	1973	5	567	Org Synth, Coll	
Nordlander, J	1981	46	778	J Org Chem	HCAPLUS
Nozoye, T	1977	25	196	Chem Pharm Bull	HCAPLUS
Nunomoto, S	1990		111	J Chem Soc, Perkin T	HCAPLUS
Ockenden, D	1957		3175	J Chem Soc	HCAPLUS
Oddo, B	1933	63	236	Gazz Chim	HCAPLUS
Odle, R	1980	45	2709	J Org Chem	HCAPLUS
Ohno, M	1991	32	1199	Heterocycles	HCAPLUS
Ohno, M	1997	53	9075	Tetrahedron	HCAPLUS
Ohta, T	1987	26	2817	Heterocycles	HCAPLUS
Ohta, T	1989	29	1663	Heterocycles	HCAPLUS
Oikawa, Y	1977	42	1213	J Org Chem	HCAPLUS
Oikawa, Y	1978		1759	Tetrahedron Lett	HCAPLUS
Ojima, I	1989	54	4511	J Org Chem	HCAPLUS
Okauchi, T	2000	2	1485	Organic Lett	HCAPLUS
Oklobdzija, M	1972	9	161	J Heterocycl Chem	HCAPLUS
Onistschenko, A	1989	122	2397	Chem Ber	HCAPLUS
Orlemans, E	1987	43	3817	Tetrahedron	HCAPLUS
Ozaki, Y	1997		679	Chem Lett	HCAPLUS
O'Sullivan, W	1972		849	Chem Ind	HCAPLUS
Padwa, A	1978	43	2029	J Org Chem	HCAPLUS
Padwa, A	1989	54	644	J Org Chem	HCAPLUS
Padwa, A	1992	57	3540	J Org Chem	HCAPLUS
Padwa, A	1994	59	7072	J Org Chem	HCAPLUS
Palla, G	1982	112	535	Gazz Chim	HCAPLUS
Palmer, M	1969		446	J Chem Soc B	HCAPLUS
Palmer, S	1997	40	1982	J Med Chem	HCAPLUS
Palmisano, G	1993	76	2356	Helv Chim Acta	HCAPLUS
Palmisano, G	1993		771	Synlett	HCAPLUS
Panunzio, M	1972		415	J Chem Soc, Chem Com	HCAPLUS
Papadopoulos, E	1968	33	4551	J Org Chem	HCAPLUS
Parker, K	1979	44	1536	J Org Chem	HCAPLUS
Parmerter, S	1958	80	4621	J Am Chem Soc	HCAPLUS
Passerini, M	1933	63	138	Gazz Chim	HCAPLUS
Patel, H	1963		4593	J Chem Soc	HCAPLUS
Patrick, J	1979		4009	Tetrahedron Lett	HCAPLUS
Patterson, J	1974	39	486	J Org Chem	HCAPLUS
Pausacker, K	1950		621	J Chem Soc	HCAPLUS
Pelchowiz, Z	1961		5418	J Chem Soc	
Pelkey, E	1997	38	5603	Tetrahedron Lett	HCAPLUS
Person, P	1991	26	473	Eur J Med Chem	

Petrov, V	1970		573	Chem Heterocycl Comp	
Petrov, V	1970	6	622	Khim Geterotsikl Soe	
Pfeil, E	1967	6	178	Angew Chem Int Ed	
Pfeuffer, L	1987	111	84	Chem-Ztg	HCAPLUS
Pfeuffer, L	1988	71	467	Helv Chim Acta	HCAPLUS
Philips, R	1983	24	5555	Tetrahedron Lett	
Phillips, R	1959	10	143	Org React	HCAPLUS
Piers, E	1962	40	559	Can J Chem	HCAPLUS
Piers, K	1963	41	2399	Can J Chem	HCAPLUS
Pindur, U	1989	89	1681	Chem Rev	HCAPLUS
Pindur, U	1988	71	1060	Helv Chim Acta	HCAPLUS
Pindur, U	1989	29	11	Heterocycles	HCAPLUS
Pindur, U	1997		1861	J Chem Soc, Perkin T	HCAPLUS
Pindur, U	1987	24	289	J Heterocycl Chem	HCAPLUS
Pindur, U	1988	25	1199	J Heterocycl Chem	HCAPLUS
Pindur, U	1986		1621	Liebigs Ann Chem	HCAPLUS
Pindur, U	1986	117	375	Monatsh Chem	HCAPLUS
Pindur, U	1989	45	6427	Tetrahedron	HCAPLUS
Pindur, U	1987	28	3079	Tetrahedron Lett	HCAPLUS
Pinto, A	1994	35	8923	Tetrahedron Lett	HCAPLUS
Plant, S	1936		40	J Chem Soc	HCAPLUS
Plate, R	1987		2473	J Chem Soc, Perkin T	HCAPLUS
Plate, R	1986	42	4511	Tetrahedron	HCAPLUS
Player, M	1993	30	125	J Heterocycl Chem	HCAPLUS
Pleininger, H	1970	743	95	Justus Liebigs Ann C	
Plescia, S	1979	16	805	J Heterocycl Chem	HCAPLUS
Plieninger, H	1961	73	433	Angew Chem	HCAPLUS
Plieninger, H	1955	88	1961	Chem Ber	HCAPLUS
Plieninger, H	1956	89	270	Chem Ber	HCAPLUS
Plieninger, H	1975	108	1776	Chem Ber	HCAPLUS
Plieninger, H	1964	680	69	Justus Liebigs Ann C	HCAPLUS
Plieninger, H	1967	98	807	Monatsh Chem	HCAPLUS
Poletto, J	1970	35	1190	J Org Chem	HCAPLUS
Ponticello, G	1979	44	4003	J Org Chem	HCAPLUS
Popp, F	1975	18	1	Adv Heterocycl Chem	HCAPLUS
Posvic, H	1974	39	2575	J Org Chem	HCAPLUS
Potts, K	1973	5	769	Org Synth, Coll	
Powers, J	1967	89	5812	J Am Chem Soc	HCAPLUS
Powers, J	1966	31	2627	J Org Chem	HCAPLUS
Prasad, G	1991	32	5035	Tetrahedron Lett	HCAPLUS
Prashad, M	1995	25	95	Synth Commun	HCAPLUS
Prasitpan, N	1992	29	335	J Heterocycl Chem	HCAPLUS
Pretka, J	1954	19	1080	J Org Chem	HCAPLUS
Prochazka, M	1990	44	610	Acta Chem Scand	HCAPLUS
Prochazka, M	1990	44	614	Acta Chem Scand	HCAPLUS
Przheval'skii, N	1988				HCAPLUS
Przheval'skii, N	1988	24	188	Khim Geterotsikl Soe	
Quallich, G	1993		51	Synthesis	HCAPLUS
Raban, M	1980	45	1688	J Org Chem	HCAPLUS
Raban, M	1980	45	1688	J Org Chem	HCAPLUS
RajanBabu, T	1985	107	5473	J Am Chem Soc	HCAPLUS
RajanBabu, T	1986	51	1704	J Org Chem	HCAPLUS
Rajeswaran, W	1997	38	7813	Tetrahedron Lett	HCAPLUS
Rajeswari, S	1989	29	415	Heterocycles	HCAPLUS
Rama Rao, A	1986	42	5065	Tetrahedron	
Ranganathan, D	1980	45	1185	J Org Chem	HCAPLUS
Raucher, S	1983	48	2066	J Org Chem	HCAPLUS
Raucher, S	1986	51	123	J Org Chem	HCAPLUS
Rawal, V	1985	26	6141	Tetrahedron Lett	HCAPLUS
Rees, C	1965		680	J Chem Soc	HCAPLUS
Reissert, A	1897	30	1030	Ber Dtsch Chem Ges	
Remers, W	1971	36	1232	J Org Chem	HCAPLUS
Remers, W	1971	36	1241	J Org Chem	HCAPLUS

Repke, D	1982	19	845	J Heterocycl Chem	HCAPLUS
Repke, D	1985	28	892	J Med Chem	HCAPLUS
Reppe, W	1956	601	81	Justus Liebigs Ann C	HCAPLUS
Rewcastle, G	1994	37	701	Heterocycles	HCAPLUS
Rinehardt, K	1987	109	3378	J Am Chem Soc	
Rinehart, K	1987	109	3378	J Am Chem Soc	HCAPLUS
Robertson, A	1927		1937	J Chem Soc	HCAPLUS
Robertson, D	1987	30	824	J Med Chem	HCAPLUS
Robinson, B	1987		2265	J Chem Soc, Perkin T	HCAPLUS
Robinson, B	1987	24	1321	J Heterocycl Chem	HCAPLUS
Robinson, B	1982			The Fischer Indole S	
Rodriguez, J	1986		1193	J Chem Soc, Perkin T	HCAPLUS
Rodriguez, J	1993	30	373	J Heterocycl Chem	HCAPLUS
Rogers, C	1987	24	941	J Heterocycl Chem	HCAPLUS
Rogers, C	1963	4	884	Org Synth, Coll	
Rogers, C	1963	4	884	Org Synth, Coll	
Rosenmund, P	1975	108	3538	Chem Ber	HCAPLUS
Roth, H	1976	309	81	Arch Pharm	HCAPLUS
Roth, K	1993		529	Synlett	HCAPLUS
Roue, N	1996	43	263	Heterocycles	HCAPLUS
Rubiralta, M	1988	44	443	Tetrahedron	HCAPLUS
Rubottom, G	1988	6	106	Org Synth, Coll	
Rubottom, G	1972		566	Synthesis	
Rudisill, D	1989	54	5856	J Org Chem	HCAPLUS
Ruggli, P	1917	50	883	Ber Dtsch Chem Ges	
Runti, C	1951	81	613	Gazz Chim	HCAPLUS
Russell, G	1991	56	663	J Org Chem	HCAPLUS
Russell, H	1991	56	871	J Org Chem	HCAPLUS
Russell, H	1985	17	391	Org Prep Proc Int	HCAPLUS
Rutenberg, M	1963	4	620	Org Synth, Coll	
Ryang, H	1972		77	J Chem Soc, Chem Com	HCAPLUS
Rydon, H	1955		3499	J Chem Soc	HCAPLUS
Saa, J	1992	57	589	J Org Chem	HCAPLUS
Saccarello, M	1979		727	Synthesis	HCAPLUS
Saito, I	1985	26	5891	Tetrahedron Lett	HCAPLUS
Saito, K	1979	16	1325	J Heterocycl Chem	HCAPLUS
Sakamoto, T	1987	35	1823	Chem Pharm Bull	HCAPLUS
Sakamoto, T	1988	36	1305	Chem Pharm Bull	HCAPLUS
Sakamoto, T	1988	36	2248	Chem Pharm Bull	HCAPLUS
Sakamoto, T	1984	22	1347	Heterocycles	HCAPLUS
Sakamoto, T	1988	27	453	Heterocycles	HCAPLUS
Sakamoto, T	1990	31	219	Heterocycles	HCAPLUS
Sakamoto, T	1993	36	941	Heterocycles	HCAPLUS
Sakamoto, T	1993		1941	J Chem Soc, Perkin T	HCAPLUS
Sakamoto, T	1996		1927	J Chem Soc, Perkin T	HCAPLUS
Sakamoto, T	1990		215	Synthesis	HCAPLUS
Sakamoto, T	1991	47	1877	Tetrahedron	HCAPLUS
Sakamoto, T	1993	34	5955	Tetrahedron Lett	HCAPLUS
Salas, M			1666	J Chem Res M	
Salas, M	1988		218	J Chem Res S	HCAPLUS
Samizu, K	1994		499	Synlett	HCAPLUS
Santangelo, F	1993	23	2717	Synth Commun	HCAPLUS
Santaniello, E	1979		617	Synthesis	HCAPLUS
Sanz-Cervera, J	1993	49	8471	Tetrahedron	HCAPLUS
Saroja, B	1986		748	Synthesis	HCAPLUS
Sasakura, K	1988	18	265	Synth Commun	HCAPLUS
Satake, K	1996	43	2361	Heterocycles	HCAPLUS
Sato, K	1989	30	4073	Tetrahedron Lett	HCAPLUS
Sato, M	1990	31	4697	Tetrahedron Lett	HCAPLUS
Satoh, M	1987		373	Synthesis	HCAPLUS
Satomura, M	1993	58	3757	J Org Chem	HCAPLUS
Satomura, M	1993	58	6936	J Org Chem	HCAPLUS
Saulnier, M	1982	47	757	J Org Chem	HCAPLUS

Saulnier, M	1983	24	5435	Tetrahedron Lett	HCAPLUS
Saxton, J	1952		3592	J Chem Soc	HCAPLUS
Schiemann, G	1933	66	727	Ber Dtsch Chem Ges	
Schiess, P	1974	57	2643	Helv Chim Acta	HCAPLUS
Schiess, P	1978	61	1364	Helv Chim Acta	HCAPLUS
Schiffl, E	1986	23	651	J Heterocycl Chem	HCAPLUS
Schlossberger, H	1963	662	132	Justus Liebigs Ann C	HCAPLUS
Schulenberg, J	1968	90	7008	J Am Chem Soc	HCAPLUS
Schulte, K	1977	305	523	Arch Pharm	
Schultz, A	1978	43	3391	J Org Chem	HCAPLUS
Scott, W	1976	41	1952	J Org Chem	HCAPLUS
Seki, K	1988	36	940	Chem Pharm Bull	HCAPLUS
Semmelhack, M	1982	240	C5	J Organometal Chem	HCAPLUS
Semmelhack, M	1981	23	3957	Tetrahedron	
Semmelhack, M	1993	34	1395	Tetrahedron Lett	HCAPLUS
Semmelhack, M	1993	34	1399	Tetrahedron Lett	HCAPLUS
Semmelhack, M	1993	34	5051	Tetrahedron Lett	HCAPLUS
Seshadri, S	1969	7	662	Indian J Chem	HCAPLUS
Setsune, J	1984		2305	J Chem Soc, Perkin T	HCAPLUS
Shafiee, A	1981		389	Synthesis	HCAPLUS
Shaw, K	1958	23	1171	J Org Chem	HCAPLUS
Shigenaga, S	1993	41	1589	Chem Pharm Bull	HCAPLUS
Shim, S	1996	26	1349	Synth Commun	HCAPLUS
Shima, I	1990	38	564	Chem Pharm Bull	HCAPLUS
Shimokawa, K	1993	34	7383	Tetrahedron Lett	HCAPLUS
Shin, K	1995		859	Synlett	HCAPLUS
Shirley, D	1953	75	375	J Am Chem Soc	HCAPLUS
Shiue, J	1993		1277	J Chem Soc, Chem Com	HCAPLUS
Shono, T	1983	24	1259	Tetrahedron Lett	HCAPLUS
Showalter, H	1997	40	413	J Med Chem	HCAPLUS
Showalter, H	1992	24	484	Org Prep Proc Int	HCAPLUS
Shriner, R	1955	3	725	Org Synth, Coll	
Shriner, R	1955	3	725	Org Synth, Coll	
Shvartsberg, M	1982	31	2226	Russ Chem Bull	
Shvartsberg, M	1982		2524	Ser Khim	HCAPLUS
Sinhababu, A	1983	48	3347	J Org Chem	HCAPLUS
Sirowej, H	1972		84	Synthesis	HCAPLUS
Smith, A	1986	42	2957	Tetrahedron	HCAPLUS
Smith, G	1963	2	287	Adv Heterocycl Chem	HCAPLUS
Smith, G	1954		3842	J Chem Soc	HCAPLUS
Smith, G	1973	29	669	Tetrahedron	HCAPLUS
Smith, K	1996		2793	J Chem Soc, Perkin T	HCAPLUS
Smith, P	1983	24	5169	Tetrahedron Lett	HCAPLUS
Smith, W	1996	37	299	Tetrahedron Lett	HCAPLUS
Snieckus, V	1990	90	879	Chem Rev	HCAPLUS
Snieckus, V	1970	35	3994	J Org Chem	HCAPLUS
Snyder, H	1955	77	1257	J Am Chem Soc	HCAPLUS
Snyder, H	1957	79	2217	J Am Chem Soc	HCAPLUS
Snyder, H	1958	80	4622	J Am Chem Soc	HCAPLUS
Soe, T	1996	42	347	Heterocycles	HCAPLUS
Soederberg, B	1997	62	5838	J Org Chem	
Somei, M	1980		813	Chem Lett	HCAPLUS
Somei, M	1978	26	2522	Chem Pharm Bull	HCAPLUS
Somei, M	1981	29	249	Chem Pharm Bull	HCAPLUS
Somei, M	1981	29	726	Chem Pharm Bull	HCAPLUS
Somei, M	1984	32	5064	Chem Pharm Bull	HCAPLUS
Somei, M	1985	33	3696	Chem Pharm Bull	HCAPLUS
Somei, M	1986	34	3971	Chem Pharm Bull	HCAPLUS
Somei, M	1986	34	4116	Chem Pharm Bull	HCAPLUS
Somei, M	1986	34	948	Chem Pharm Bull	HCAPLUS
Somei, M	1987	35	1322	Chem Pharm Bull	HCAPLUS
Somei, M	1987	35	3146	Chem Pharm Bull	HCAPLUS
Somei, M	1991	39	1905	Chem Pharm Bull	HCAPLUS

Somei, M	1998	46	191	Chem Pharm Bull	HCAPLUS
Somei, M	1981	16	1523	Heterocycles	HCAPLUS
Somei, M	1981	16	941	Heterocycles	HCAPLUS
Somei, M	1983	20	1797	Heterocycles	HCAPLUS
Somei, M	1983	20	1983	Heterocycles	HCAPLUS
Somei, M	1984	22	797	Heterocycles	HCAPLUS
Somei, M	1985	23	1101	Heterocycles	HCAPLUS
Somei, M	1985	23	3113	Heterocycles	HCAPLUS
Somei, M	1986	24	3065	Heterocycles	HCAPLUS
Somei, M	1988	27	1585	Heterocycles	HCAPLUS
Somei, M	1988	27	2363	Heterocycles	HCAPLUS
Somei, M	1989	29	1251	Heterocycles	HCAPLUS
Somei, M	1989	29	643	Heterocycles	HCAPLUS
Somei, M	1989	29	643	Heterocycles	HCAPLUS
Somei, M	1989	29	653	Heterocycles	HCAPLUS
Somei, M	1992	34	1285	Heterocycles	HCAPLUS
Somei, M	1992	34	1295	Heterocycles	HCAPLUS
Somei, M	1997	45	2327	Heterocycles	HCAPLUS
Somei, M	1997	46	91	Heterocycles	HCAPLUS
Song, H	1998	48	103	Heterocycles	HCAPLUS
Sosnovsky, G	1989	44b	582	Z Naturforsch, B: Ch	
Spadoni, G	1992	29	305	J Heterocycl Chem	HCAPLUS
Spaeth, E	1930	63	2102	Chem Ber	
Speckamp, W	1984	21	211	Heterocycles	HCAPLUS
Speeter, M	1954	76	6208	J Am Chem Soc	HCAPLUS
Srivastava, N	1983	22	707	Indian J Chem	
St Black, D	1980	33	343	Aust J Chem	
Stamos, I	1995	32	947	J Heterocycl Chem	HCAPLUS
Stamos, I	1980		663	Synthesis	HCAPLUS
Stephens, R	1963	28	3313	J Org Chem	HCAPLUS
Stjernlof, P	1995	38	2202	J Med Chem	MEDLINE
Stoll, A	1955	38	1452	Helv Chim Acta	HCAPLUS
Street, J	1987		1599	J Chem Soc, Perkin T	HCAPLUS
Street, L	1993	36	1529	J Med Chem	HCAPLUS
Stuetz, P	1977	6	109	Org Synth, Coll	
Su, H	1960	82	1187	J Am Chem Soc	HCAPLUS
Sugasawa, T	1979	44	578	J Org Chem	HCAPLUS
Sukari, M	1983		2219	J Chem Soc, Perkin T	HCAPLUS
Sukata, K	1983	56	280	Bull Chem Soc	HCAPLUS
Sumpter, W	1945	67	1657	J Am Chem Soc	
Sumpter, W	1945	67	499	J Am Chem Soc	HCAPLUS
Sundberg, R	1996			Indoles	
Sundberg, R	1969	6	441	J Heterocycl Chem	HCAPLUS
Sundberg, R	1981	18	807	J Heterocycl Chem	HCAPLUS
Sundberg, R	1965	30	3604	J Org Chem	HCAPLUS
Sundberg, R	1972	37	719	J Org Chem	HCAPLUS
Sundberg, R	1973	38	3324	J Org Chem	HCAPLUS
Sundberg, R	1984	49	249	J Org Chem	HCAPLUS
Sundberg, R	1988	53	5097	J Org Chem	HCAPLUS
Sundberg, R	1991	56	3048	J Org Chem	HCAPLUS
Sundberg, R	1970			The Chemistry of Ind	
Suresh, J	1997	53	14737	Tetrahedron	HCAPLUS
Suzuki, H	1984		616	Synthesis	HCAPLUS
Suzuki, K	1979		1241	Chem Lett	HCAPLUS
Suzuki, T	1997	45	101	Chem Pharm Bull	HCAPLUS
Swaminathan, S	1966	99	889	Chem Ber	HCAPLUS
Swaminathan, S	1958	23	707	J Org Chem	HCAPLUS
Szabo-Pusztay, K	1979		276	Synthesis	HCAPLUS
Szczepankiewicz, B	1997	53	8853	Tetrahedron	HCAPLUS
Szmuszkovicz, J	1957	79	2819	J Am Chem Soc	HCAPLUS
Takami, H	1996	39	5047	J Med Chem	HCAPLUS
Takechi, H	1988	36	3770	Chem Pharm Bull	HCAPLUS
Takeda, Y	1992	33	173	Heterocycles	HCAPLUS

Tambute, A	1974	278	1239	CR Acad Sci Ser C	HCAPLUS
Tamura, Y	1984	32	1995	Chem Pharm Bull	HCAPLUS
Tamura, Y	1980		1132	J Chem Soc, Perkin T	HCAPLUS
Tamura, Y	1978	15	425	J Heterocycl Chem	HCAPLUS
Tanaka, H	1989	62	3742	Bull Chem Soc	HCAPLUS
Tani, M	1990	38	3261	Chem Pharm Bull	HCAPLUS
Taniguchi, M	1983	31	1857	Chem Pharm Bull	
Taniguchi, M	1984	32	2545	Chem Pharm Bull	
Taniguchi, N	1981	37	1487	Tetrahedron	
Taylor, E	1985	26	5963	Tetrahedron Lett	HCAPLUS
ten Have, R	1998	54	1913	Tetrahedron	HCAPLUS
Teotino, U	1959	89	1853	Gazz Chim	HCAPLUS
Teranishi, K	1994		1018	Synthesis	HCAPLUS
Teranishi, K	1995		506	Synthesis	HCAPLUS
Terashima, M	1982	19	91	Heterocycles	HCAPLUS
Terent'ev, A	1958	121	481		HCAPLUS
Terent'ev, A	1958		118	Dokl Chem	
Terent'ev, A	1960		1238	J Gen Chem	
Terent'ev, A	1962	32	1311	J Gen Chem	
Terent'ev, A	1960	30	1218	Zh Obshch Khim	HCAPLUS
Terent'ev, A	1962	32	1335	Zh Obshch Khim	HCAPLUS
Terpko, M	1979	101	5281	J Am Chem Soc	HCAPLUS
Teuber, H	1956	89	489	Chem Ber	HCAPLUS
Teuber, H	1963	96	2617	Chem Ber	HCAPLUS
Thesing, J	1952	85	324	Chem Ber	HCAPLUS
Thesing, J	1954	87	692	Chem Ber	HCAPLUS
Thesing, J	1955	88	1295	Chem Ber	HCAPLUS
Thesing, J	1955	88	1978	Chem Ber	HCAPLUS
Thesing, J	1957	90	1419	Chem Ber	HCAPLUS
Thesing, J	1964	680	52	Justus Liebigs Ann C	HCAPLUS
Tietze, L	1994	59	192	J Org Chem	HCAPLUS
Tischler, A	1986	27	1653	Tetrahedron Lett	HCAPLUS
Tomita, K	1976	4	729	Heterocycles	HCAPLUS
Tomita, K	1976	4	733	Heterocycles	HCAPLUS
Toyota, M	1990	31	1431	Heterocycles	HCAPLUS
Toyota, M	1992		547	J Chem Soc, Perkin T	HCAPLUS
Treibs, W	1961	94	2142	Chem Ber	HCAPLUS
Troxler, F	1968	51	1203	Helv Chim Acta	HCAPLUS
Tsuji, Y	1986		1575	J Chem Soc, Chem Com	HCAPLUS
Tsuji, Y	1987	52	1673	J Org Chem	HCAPLUS
Tsuji, Y	1990	55	580	J Org Chem	HCAPLUS
Tyson, F	1955	3	479	Org Synth, Coll	
Uchica, M	1987	35	853	Chem Pharm Bull	
Uhle, F	1949	71	761	J Am Chem Soc	HCAPLUS
Uhle, F	1955	77	3334	J Am Chem Soc	HCAPLUS
Uhle, F	1960	82	1200	J Am Chem Soc	HCAPLUS
Unangst, P	1984	21	709	J Heterocycl Chem	HCAPLUS
Unangst, P	1987	24	811	J Heterocycl Chem	HCAPLUS
Unangst, P	1987	24	817	J Heterocycl Chem	HCAPLUS
Unangst, P	1996	33	2025	J Heterocycl Chem	HCAPLUS
Underwood, R	1992	22	343	Synth Commun	HCAPLUS
Utsunomiya, I	1995	43	37	Chem Pharm Bull	HCAPLUS
Vaillancourt, V	1993	115	3499	J Am Chem Soc	HCAPLUS
van Alphen, J	1942	61	888	Recl Trav Chim Pays-	HCAPLUS
van Pee, K	1981		233	Liebigs Ann Chem	HCAPLUS
van Tamelen, E	1955	77	1860	J Am Chem Soc	HCAPLUS
Venemalm, L	1988	29	2993	Tetrahedron Lett	
Venkatachalam, T	1993	25	249	Org Prep Proc Int	HCAPLUS
Verboom, W	1986	42	5053	Tetrahedron	HCAPLUS
Vice, S	1985	26	165	Tetrahedron Lett	HCAPLUS
Villemin, D	1989	29	1255	Heterocycles	HCAPLUS
von Dobeneck, H	1962	95	1484	Chem Ber	
Vorbruggen, H	1994	50	6549	Tetrahedron	HCAPLUS

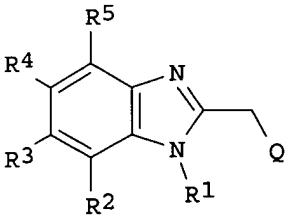
Wackerele, L	1975		598	Synthesis	
Wakamatsu, T	1980	14	1441	Heterocycles	HCAPLUS
Walker, G	1956	78	3698	J Am Chem Soc	HCAPLUS
Walker, G	1958	77	3844	J Am Chem Soc	
Walker, J	1970	13	983	J Med Chem	HCAPLUS
Walkup, R	1985	26	2155	Tetrahedron Lett	HCAPLUS
Walsh, D	1984	27	1379	J Med Chem	HCAPLUS
Walsh, D	1990	33	2296	J Med Chem	HCAPLUS
Walton, E	1965	8	204	J Med Chem	HCAPLUS
Wang, J	1997	38	3797	Tetrahedron Lett	HCAPLUS
Wang, J	1997	38	705	Tetrahedron Lett	HCAPLUS
Wang, S	1997	38	7597	Tetrahedron Lett	HCAPLUS
Wang, Z	1996	61	816	J Org Chem	HCAPLUS
Weedon, A	1992		95	Synthesis	HCAPLUS
Welch, W	1977		645	Synthesis	HCAPLUS
Wender, P	1983	39	3767	Tetrahedron	HCAPLUS
Wender, P	1986	42	2985	Tetrahedron	HCAPLUS
Wender, P	1987	28	6125	Tetrahedron Lett	HCAPLUS
Wenkert, E	1988	110	7188	J Am Chem Soc	HCAPLUS
Wenkert, E	1986	51	2343	J Org Chem	HCAPLUS
Wenkert, E	1987	52	3404	J Org Chem	HCAPLUS
Wensbro, D	1995	51	10323	Tetrahedron	
Wensbro, D	1996	52	14975	Tetrahedron	
Whaley, W	1951	6	151	Org React	
Whaley, W	1951	6	74	Org React	
Wieland, T	1963	96	253	Chem Ber	HCAPLUS
Wieland, T	1954	587	146	Justus Liebigs Ann C	HCAPLUS
Wierenga, W	1983	24	2437	Tetrahedron Lett	HCAPLUS
Wilcox, M	1965	48	252	Helv Chim Acta	HCAPLUS
Wilkens, J	1987	43	3237	Tetrahedron	HCAPLUS
Williams, T	1993	36	1291	J Med Chem	HCAPLUS
Wirth, T	1994		717	Synlett	HCAPLUS
Wiseman, E	1973	16	131	J Med Chem	HCAPLUS
Wojciechowski, K	1986		651	Synthesis	HCAPLUS
Wojciechowski, K	1989		106	Synthesis	HCAPLUS
Wojciechowski, K	1984	25	4793	Tetrahedron Lett	HCAPLUS
Wojcieshowski, W	1986	95	671	Bull Soc Chim Belg	
Wolfe, J	1980	102	3646	J Am Chem Soc	HCAPLUS
Wolff, J	1986	42	4267	Tetrahedron	HCAPLUS
Wolman, Y	1975		732	Synthesis	HCAPLUS
Woolridge, E	1989	30	6117	Tetrahedron Lett	HCAPLUS
Wright, S	1996	37	4631	Tetrahedron Lett	HCAPLUS
Wrobel, Z	1993		597	Synlett	HCAPLUS
Yagil, G	1967	23	2855	Tetrahedron	HCAPLUS
Yamada, F	1987	26	1173	Heterocycles	HCAPLUS
Yamaguchi, M	1998		1399	Chem Commun	HCAPLUS
Yamamoto, H	1968	16	17	Chem Pharm Bull	HCAPLUS
Yamamoto, K	1982		1225	Chem Lett	HCAPLUS
Yamane, K	1972	45	269	Bull Chem Soc	HCAPLUS
Yamashita, A	1985	26	2969	Tetrahedron Lett	HCAPLUS
Yang, C	1993	58	3100	J Org Chem	HCAPLUS
Yang, L	1996	37	5041	Tetrahedron Lett	HCAPLUS
Yang, N	1989	111	8060	J Am Chem Soc	HCAPLUS
Yang, Y	1992	34	1169	Heterocycles	HCAPLUS
Yang, Y	1992	34	1395	Heterocycles	HCAPLUS
Yang, Y	1992	22	1757	Synth Commun	HCAPLUS
Yasuhara, A	1998	39	595	Tetrahedron Lett	HCAPLUS
Yokoyama, M	1987		846	Synthesis	HCAPLUS
Yokoyama, Y	1991		1125	Chem Lett	HCAPLUS
Yokoyama, Y	1991	39	2830	Chem Pharm Bull	HCAPLUS
Yokoyama, Y	1994	42	832	Chem Pharm Bull	HCAPLUS
Yokoyama, Y	1989	29	1661	Heterocycles	HCAPLUS
Yokoyama, Y	1990	31	803	Heterocycles	HCAPLUS

Yokoyama, Y	1993	36	1739	Heterocycles	HCAPLUS
Yokoyama, Y	1990		1319	J Chem Soc, Perkin T	HCAPLUS
Yoneda, F	1967	15	8	Chem Pharm Bull	HCAPLUS
Yoshida, K	1987	35	4700	Chem Pharm Bull	HCAPLUS
Youmans, H	1976	13	949	J Heterocycl Chem	HCAPLUS
Young, E	1958		3493	J Chem Soc	HCAPLUS
Youngdale, G	1969	12	948	J Med Chem	HCAPLUS
Zelesko, M	1983	26	230	J Med Chem	HCAPLUS
Zembower, D	1994		1433	Synthesis	HCAPLUS
Zhang, D	1996	61	2594	J Org Chem	HCAPLUS
Zhang, H	1997	62	1804	J Org Chem	HCAPLUS
Zhang, H	1997	38	2439	Tetrahedron Lett	HCAPLUS
Zhang, P	1995	36	3401	Tetrahedron Lett	
Zhang, R	1990		801	Synthesis	HCAPLUS
Zhang, Y	1993	115	8867	J Am Chem Soc	
Zhao, D	1991	56	3001	J Org Chem	HCAPLUS
Zheng, Q	1994	37	1761	Heterocycles	HCAPLUS
Ziegler, F	1970	92	3492	J Am Chem Soc	HCAPLUS
Zorgdrager, J	1989	108	441	Recl Trav Chim Pays-	HCAPLUS

L143 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:556140 HCAPLUS
DN 137:125159
TI Preparation and antiviral activity of heterocyclic substituted 2-methylbenzimidazole antiviral agents
IN Yu, Kuo-Long; Civiello, Rita L.; Combrink, Keith D.; Gulgeze, Hatice Belgin; Sin, Ny; Wang, Xiangdong; Meanwell, Nicholas; Venables, Brian Lee; Zhang, Yi; Pearce, Bradley C.; Yin, Zhiwei; Thuring, Jan Willem
PA Bristol-Myers Squibb Co., USA
SO U.S. Pat. Appl. Publ., 89 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002099208	A1	20020725	US 2001-994012	20011116 <--
	US 6774134	B2	20040810		
	WO 2002062290	A2	20020815	WO 2001-US45149	20011120 <--
	WO 2002062290	A3	20021121		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1343499	A2	20030917	EP 2001-270116	20011120 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004520387	T2	20040708	JP 2002-562298	20011120 <--
	US 2004067997	A1	20040408	US 2003-643411	20030819 <--
	US 6844342	B2	20050118		
PRAI	US 2000-257139P	P	20001220 <--		
	US 2001-994012	A3	20011116 <--		
	WO 2001-US45149	W	20011120 <--		

OS MARPAT 137:125159
GI



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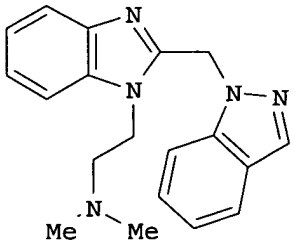

II

AB The title compds. [I; R1 = (CRaRb)nX; Ra, Rb = independently H, C1-6 (un)substituted alkyl; X = H, C1-6 (un)substituted alkyl; n = 1-6; R2, R5 = independently H or halogen; R3, R4 = independently H, halogen, C1-6 (un)substituted alkyl; Q = heterocyclic group], useful in the treatment of viral infections, more particularly, for the treatment of respiratory syncytial virus infection, were prepared E.g., a four-step synthesis of II, starting with 2-(chloromethyl)benzimidazole, was given. The antiviral activity of these compds. against respiratory syncytial virus (RSV) was determined in HEp-2 (ATCC CCL 23) cells. The title compds. I, disclosed herein, show antiviral activity with EC50s between 50 μM and 0.001 μM.

IT **443985-51-1P 443985-84-0P 443986-30-9P**
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation and use of heterocyclic substituted 2-methyl-benzimidazole antiviral agents)

IT **75-05-8**, Acetonitrile, reactions **591-51-5**, Phenyllithium **939-16-2 1822-51-1**, 4-(Chloromethyl)pyridine hydrochloride **5345-47-1**, 2-Aminonicotinic acid **14338-32-0**, 2-Chloro-1-methyl pyridinium iodide **37756-48-2 38700-15-1**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation and use of heterocyclic substituted 2-methyl-benzimidazole antiviral agents)

IT **443986-86-5P 443986-88-7P 443987-12-0P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and use of heterocyclic substituted 2-methyl-benzimidazole antiviral agents)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1982			EP 058146 A1	HCAPLUS
Anon	1998			AU A-14704	
Anon	2000			WO 0004900	HCAPLUS
Anon	2000			WO 0038508	
Anon	2001			WO 0100611	HCAPLUS
Anon	2001			WO 0100612	HCAPLUS
Anon	2001			WO 0100615	HCAPLUS
Anon	2001			WO 0136395	HCAPLUS
Anon	1997	277	12	Jama	
Cakir, B	1988	5	71	Gazi Eczacilik Fak.	HCAPLUS
De Clercq, E	1996	7	193	Int. J. Antimicrobia	HCAPLUS
Dubovi, E	1981	19	649	Antimicrobial Agents	HCAPLUS
Howard, H	1992	27	779	Eur. J. Med. Chem.	HCAPLUS
Hsu	1993			US 5256668 A	HCAPLUS
Pagani, F	1965	104	427	Boll. Chim. Farm.	HCAPLUS
Paglietti, G	1975	30	505	Farmaco-Ed. Sc.	HCAPLUS

Roderick, W	1972	15	655	J. Med. Chem.	HCAPLUS
Shigeta, S	1992	3	171	Antiviral Chemistry	HCAPLUS
Sparatore	1968			US 3394141 A	HCAPLUS
Sparatore, F	1978	33	901	Il Farmaco Ed. Sci.	HCAPLUS
Tidwell	1982			US 4324794 A	HCAPLUS
Tidwell, R	1983	26	294	J. Med. Chem.	HCAPLUS
Wyde, P	1998	38	31	Antiviral Research	HCAPLUS

L143 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:167995 HCAPLUS
DN 134:207833
TI Preparation of tricyclic inhibitors of poly(ADP-ribose) polymerases
IN Webber, Stephen Evan; Skalitzky, Donald James; Tikhe, Jayashree Girish; Kumpf, Robert Arnold; Marakovits, Joseph Timothy; Eastman, Walter Brian
PA Agouron Pharmaceuticals, Inc., USA; Cancer Research Campaign Technology Limited
SO PCT Int. Appl., 236 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001016136	A2	20010308	WO 2000-US23882	20000831 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2382404	AA	20010308	CA 2000-2382404	20000831 <--
	AU 2000073389	A5	20010326	AU 2000-73389	20000831 <--
	EP 1208104	A2	20020529	EP 2000-961437	20000831 <--
	EP 1208104	B1	20050119		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	BR 2000015051	A	20020625	BR 2000-15051	20000831 <--
	JP 2003513015	T2	20030408	JP 2001-519702	20000831 <--
	US 6548494	B1	20030415	US 2000-653184	20000831 <--
	EE 200200100	A	20030616	EE 2002-100	20000831 <--
	NZ 516793	A	20040326	NZ 2000-516793	20000831 <--
	AT 287406	E	20050215	AT 2000-961437	20000831 <--
	NO 2002000421	A	20020425	NO 2002-421	20020128 <--
	ZA 2002000830	A	20030130	ZA 2002-830	20020130 <--
	BG 106562	A	20030331	BG 2002-106562	20020329 <--
PRAI	US 1999-152142P	P	19990831 <--		
	WO 2000-US23882	W	20000831 <--		

OS MARPAT 134:207833
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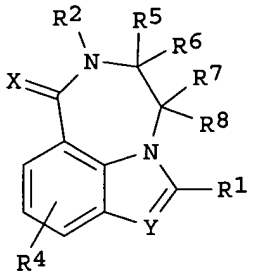

I

AB The title compds. [I; X = O, S; Y = N, CR3 (wherein R3 = halo, CN, alkyl, etc.); R1 = H, halo, CN, etc.; R2 = H, alkyl; R4 = H, halo, alkyl; R5-R8 = H, alkyl, alkenyl, aryl, etc.] which are poly(ADP-ribosyl)transferase inhibitors, and are useful in treating cancers and in ameliorating the effects of stroke, head trauma, and neurodegenerative disease, were prepared E.g., a multi-step synthesis of 1-phenyl-8,9-dihydro-7H-2,7,9a-triaza-benzo[cd]azulen-6-one [I; Y = N; X = O; R1 = Ph; R2, R4-R8 = H] was given. Biol. data for compds. I were presented.

IT **328542-32-1P 328544-08-7P 328544-40-7P 328544-55-4P 328544-57-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **RCT (Reactant)**; **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; **RACT (Reactant or reagent)**; USES (Uses)
(preparation of tricyclic inhibitors of poly(ADP-ribose) polymerases)

IT **328542-08-1P 328542-16-1P 328542-26-3P 328542-78-5P 328543-35-7P 328544-06-5P 328544-22-5P 328544-25-8P 328546-05-0P 328546-07-2P 328546-09-4P 328546-13-0P 328546-15-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of tricyclic inhibitors of poly(ADP-ribose) polymerases)

IT **107-13-1**, Acrylonitrile, reactions **109-04-6**, 2-Bromopyridine **591-51-5**, Phenyllithium **626-55-1**, 3-Bromopyridine **1945-84-2**, 2-Ethynylpyridine **19524-06-2**, 4-Bromopyridine hydrochloride **39178-35-3**, Isonicotinoyl chloride hydrochloride **66608-11-5**, 6-Chloronicotinoyl chloride hydrochloride **328547-40-6 328547-41-7**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of tricyclic inhibitors of poly(ADP-ribose) polymerases)

IT **99163-12-9P 127406-55-7P 127406-56-8P 328546-85-6P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of tricyclic inhibitors of poly(ADP-ribose) polymerases)

L143 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:911230 HCAPLUS
DN 134:71598
TI Preparation of 2-arylamino-5-cyanopyrimidines as inhibitors of KDR kinase and/or FGFr kinase.
IN Batchelor, Mark James; Moffat, David Festus Charles; Davis, Jeremy Martin; Hutchings, Martin Clive
PA Celltech Chiroscience Limited, UK
SO PCT Int. Appl., 102 pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000078731	A1	20001228	WO 2000-GB2382	20000619 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6579983	B1	20030617	US 2000-596952	20000616 <--
CA 2375182	AA	20001228	CA 2000-2375182	20000619 <--
BR 2000011770	A	20020305	BR 2000-11770	20000619 <--
EP 1187816	A1	20020320	EP 2000-940569	20000619 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 10084704	T	20020529	DE 2000-10084704	20000619 <--
GB 2369360	A1	20020529	GB 2001-30563	20000619 <--
JP 2003502406	T2	20030121	JP 2001-504897	20000619 <--
ES 2188429	A1	20030616	ES 2001-50085	20000619 <--
AU 778533	B2	20041209	AU 2000-55488	20000619 <--
BG 106116	A	20020731	BG 2001-106116	20011119 <--
ZA 2001009841	A	20020429	ZA 2001-9841	20011129 <--
NO 2001006162	A	20020218	NO 2001-6162	20011217 <--
US 2002147339	A1	20021010	US 2002-151518	20020520 <--
US 2004180914	A1	20040916	US 2004-812293	20040329 <--
PRAI GB 1999-14258	A	19990618	<--	
US 2000-596952	A1	20000616	<--	
WO 2000-GB2382	W	20000619	<--	
US 2002-151518	B1	20020520		

OS MARPAT 134:71598
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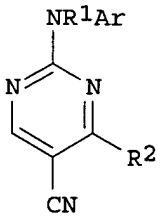


I

AB Title compds. [I; Ar = (substituted) aryl, heteroaryl; R1 = H, alkyl; R2 = X1R3; X1 = bond, linker atom or group; R3 = (substituted) aliphatic, cycloaliph., heteroaliph., heterocycloaliph., aromatic or heteroarom. group] and the salts, solvates, hydrates and N-oxides thereof, were prepared Thus, 3,4,5-trimethoxyphenylguanidinium nitrate (preparation given), 1-phenyl-2-cyano-3-dimethylaminopropen-1-one, and NaOH were refluxed in EtOH to give 5-cyano-4-phenyl-N-(3,4,5-trimethoxyphenyl)pyrimidin-2-amine. I inhibited KDR kinase and FGFr kinase with IC50 ≤1 μM.

IT **314267-42-0P 314267-60-2P 314269-08-4P**
314269-09-5P 314269-10-8P 314269-13-1P
314269-14-2P 314269-15-3P 314269-18-6P
314269-38-0P 314269-46-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of 2-arylamino-5-cyanopyrimidines as inhibitors of KDR kinase and/or FGFr kinase)

IT **75-05-8**, Acetonitrile, reactions **614-18-6**, Ethyl nicotinate **52023-68-4**, 2-Morpholino-5-aminopyridine **58757-38-3**, 6-Chloronicotinoyl chloride **60639-28-3** **314268-65-0**, 2-Chloro-5-cyano-4-phenylpyridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of 2-arylamino-5-cyanopyrimidines as inhibitors of KDR kinase and/or FGFr kinase)

IT **130371-60-7P 314267-71-5P 314267-76-0P** **314267-77-1P 314267-78-2P 314268-30-9P** **314268-31-0P 314268-33-2P 314268-39-8P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation of 2-arylamino-5-cyanopyrimidines as inhibitors of KDR kinase and/or FGFr kinase)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Ciba-Geigy	1985			EP 0135472 A	HCAPLUS
Signal	1997			WO 9709325 A	HCAPLUS

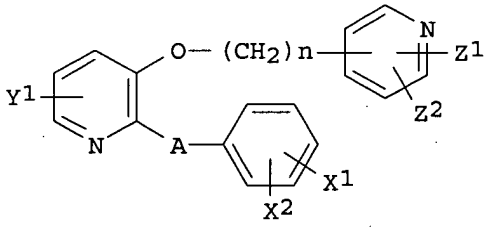
L143 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:241185 HCAPLUS
DN 132:265094
TI Preparation of 2,3-disubstituted pyridine derivatives as phosphodiesterase IV (PDE IV) inhibitors, process for the preparation thereof, drug compositions containing the same and intermediates for the preparation
IN Kawasaki, Motoji; Nigo, Tomohiro; Nobata, Tadashi; Nakamura, Shunya; Itoh, Mari
PA Dainippon Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000020391	A1	20000413	WO 1999-JP5385	19990930 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2345577	AA	20000413	CA 1999-2345577	19990930 <--
AU 9960000	A1	20000426	AU 1999-60000	19990930 <--
AU 754253	B2	20021107		
EP 1120409	A1	20010801	EP 1999-970082	19990930 <--
EP 1120409	B1	20050126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101028	T2	20010821	TR 2001-200101028	19990930 <--
BR 9914091	A	20011127	BR 1999-14091	19990930 <--
NZ 510719	A	20030228	NZ 1999-510719	19990930 <--

	RU 2235095	C2	20040827	RU 2001-112110	19990930 <--
	AT 287875	E	20050215	AT 1999-970082	19990930 <--
	ZA 2001002067	A	20011024	ZA 2001-2067	20010313 <--
	US 6555557	B1	20030429	US 2001-787766	20010322 <--
	NO 2001001722	A	20010605	NO 2001-1722	20010405 <--
	US 2003195232	A1	20031016	US 2003-383586	20030310 <--
	US 6765095	B2	20040720		
	US 2003199554	A1	20031023	US 2003-383585	20030310 <--
	US 6683186	B2	20040127		
PRAI	JP 1998-283848	A	19981006 <--		
	WO 1999-JP5385	W	19990930 <--		
	US 2001-787766	A3	20010322 <--		

OS MARPAT 132:265094

GI



I

AB Described are pyridinylalkoxypyridine compds. represented by general formula (I) (wherein A is O, S, CHR1 or NR2; R1 and R2 are each H or lower alkyl; X1 and X2 are each H, halogeno, nitro, cyano or the like; Y1 is H or lower alkyl; Z1 and Z2 are each H, halogeno, cyano, hydroxy, lower alkyl or the like; and n is an integer of 2 to 4), and physiol. acceptable salts thereof; a process for the preparation of both; drug compns. containing the same as the active ingredient; and intermediates for the preparation The compds. I exhibit potent PDE IV inhibiting and excellent bronchodilating activities, and are therefore useful as PDE IV inhibitors and as therapeutic and preventive drugs for various allergic inflammatory diseases, organ inflammatory diseases and so on, particularly airway-obstructive lung diseases including asthma. Thus, 2-phenoxy-3-pyridinol was condensed with 3-(3-methoxymethoxypyridin-4-yl)-1-propanol using Ph3P and diisopropyl azodicarboxylate in THF, followed by hydrolysis in HCl in aqueous ethanol under reflux to give 2-phenoxy-3-[3-(3-hydroxypyridin-4-yl)propoxy]pyridine which was acetylated by Ac2O in pyridine to give 2-phenoxy-3-[3-(3-acetoxypyridin-4-yl)propoxy]pyridine (II). II showed IC50 of 5.6 nM against PDE IV. A tablet formulation containing 2-(3-chlorophenoxy)-3-[3-(3-hydroxypyridin-4-yl)propoxy]pyridine was described.

IT **263390-85-8P 263390-86-9P 263390-87-0P**
263390-88-1P 263390-89-2P 263390-90-5P
263390-91-6P 263390-92-7P 263390-93-8P
263390-94-9P 263390-95-0P 263390-96-1P
263390-97-2P 263390-98-3P 263390-99-4P
263391-00-0P 263391-01-1P 263391-02-2P
263391-03-3P 263391-04-4P 263391-05-5P
263391-06-6P 263391-07-7P 263391-08-8P
263391-09-9P 263391-10-2P 263391-11-3P
263391-12-4P 263391-13-5P 263391-15-7P
263391-16-8P 263391-17-9P 263391-18-0P
263391-19-1P 263391-20-4P 263391-21-5P
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263391-31-7P 263391-32-8P 263391-34-0P
263391-36-2P 263391-37-3P 263391-38-4P
263391-39-5P 263391-40-8P 263391-41-9P
263391-42-0P 263391-43-1P 263391-44-2P
263391-45-3P 263391-46-4P 263391-48-6P
263391-49-7P 263391-51-1P 263391-52-2P
263391-53-3P 263391-54-4P 263391-55-5P
263391-56-6P 263391-58-8P 263391-59-9P
263391-60-2P 263391-61-3P 263391-67-9P
263391-69-1P 263391-70-4P 263391-71-5P
263391-72-6P 263391-73-7P 263391-74-8P
263391-75-9P 263391-77-1P 263391-78-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of 2,3-disubstituted pyridine derivs. as phosphodiesterase IV (PDE IV) inhibitors and drugs)

IT **75-21-8**, Oxirane, reactions **625-92-3**, 3,5-Dibromopyridine **917-54-4**, Methyllithium **1802-16-0**, 3-(Pyridin-3-yl)propanal **2457-47-8**, 3,5-Dichloropyridine **2859-67-8**, 3-(Pyridin-3-yl)-1-propanol **3430-22-6**, 3-Bromo-4-methylpyridine **6602-32-0**, 2-Bromo-3-pyridinol **24100-18-3**, 2-Bromo-3-methoxypyridine **120690-80-4**, 4-Pyridinepropanal **132330-98-4**, 3-Benzyloxy-2-bromopyridine **162271-10-5 263270-32-2**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of 2,3-disubstituted pyridine derivs. as phosphodiesterase IV (PDE IV) inhibitors and drugs)

IT **5264-15-3P**, 4-Pyridinebutanol **5444-01-9P**, 3-Cyano-4-methylpyridine **71532-24-6P**, 3-(3-Butenyl)pyridine **153615-95-3P 198710-37-1P 229184-01-4P**
263390-53-0P 263390-64-3P 263390-65-4P
263390-66-5P 263390-67-6P 263390-68-7P
263390-69-8P 263390-70-1P 263390-71-2P
263390-72-3P 263390-73-4P 263390-74-5P
263390-75-6P 263390-76-7P 263390-77-8P
263390-78-9P 263390-79-0P 263390-80-3P
263390-81-4P 263390-82-5P 263390-83-6P
263390-84-7P 263391-62-4P 263391-63-5P
263391-64-6P 263391-65-7P 263391-66-8P
263391-68-0P 263391-76-0P
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation of 2,3-disubstituted pyridine derivs. as phosphodiesterase IV (PDE IV) inhibitors and drugs)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Pfizer Inc				JP 08501318 A	
Pfizer Inc				US 5814651 A	HCAPLUS
Pfizer Inc	1994			WO 9412461 A1	HCAPLUS
Sliwa, H	1979	12	493	Synthesis of New Fun	HCAPLUS
Teikoku Hormone Mfg Co				JP 1129569 A	
Teikoku Hormone Mfg Co				AU 9880369 A1	HCAPLUS
Teikoku Hormone Mfg Co	1999			WO 9902519 A1	HCAPLUS

L143 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:722748 HCAPLUS
DN 131:322543
TI Preparation of 2-substituted pyridines via lithiation and electrophilic substitution

IN Kelly, Martha Jean; Weaver, Damian Gerard
PA Rohm and Haas Company, USA
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 955291	A1	19991110	EP 1999-303341	19990428 <--
	EP 955291	B1	20020710		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CN 1238331	A	19991215	CN 1999-105986	19990426 <--
	CN 1114593	B	20030716		
	IL 129596	A1	20031031	IL 1999-129596	19990426 <--
	AU 9925003	A1	19991118	AU 1999-25003	19990429 <--
	AU 748410	B2	20020606		
	US 6054583	A	20000425	US 1999-305410	19990505 <--
	BR 9901985	A	20000502	BR 1999-1985	19990507 <--
	JP 11335353	A2	19991207	JP 1999-128401	19990510 <--
PRAI	US 1998-84685P	P	19980508 <--		

OS CASREACT 131:322543; MARPAT 131:322543
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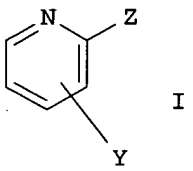

I

AB 2-Substituted pyridines (I; Y = a group that is not reactive with the **lithium** compds. under reaction conditions; Z = electrophile residue) are prepared in high yield via a metal-halogen exchange with sec-Bu **lithium** on optionally substituted 2-bromo or 2-iodopyridines and the resulting 2-lithopyridine intermediate is then reacted with an electrophile to provide I. Thus, sec-Bu **lithium** was reacted with 2-bromo-5-chloropyridine and the lithiated intermediate reacted with N,N-dimethylacetamide to produce 2-acetyl-5-chloropyridine in 65% yield.

IT **75-05-8**, Acetonitrile, reactions **107-12-0**, Propionitrile **598-30-1**, sec-Butyl **lithium** **40473-01-6**, 2-Bromo-5-chloropyridine **50488-42-1**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of 2-substituted pyridines via lithiation and electrophilic substitution)

IT **94952-46-2P** **248274-16-0P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of 2-substituted pyridines via lithiation and electrophilic substitution)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Dongwei, C	1996	37	2537	TETRAHEDRON LETTERS	
Gilman, H	1951	16	1788	JOURNAL OF ORGANIC C	HCAPLUS
Reitz, D	1997			US 5602153 A	
Sandoz AG	1995			EP 0683156 A	HCAPLUS

L143 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:640837 HCAPLUS
DN 131:243187
TI Preparation of piperidine derivs. with activity on muscarinic receptors
IN Brann, Mark Robert; Messier, Terri; Currier, Erika Anne; Duggento, Katharan Lauri; Friberg, Mikael; Skjaerbaek, Niels; Spalding, Tracy
PA Acadia Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9950247	A1	19991007	WO 1999-US7057	19990331 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2326804	AA	19991007	CA 1999-2326804	19990331 <--
	AU 9932187	A1	19991018	AU 1999-32187	19990331 <--
	AU 762726	B2	20030703		
	EP 1068185	A1	20010117	EP 1999-914306	19990331 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9909277	A	20011016	BR 1999-9277	19990331 <--
	JP 2002509918	T2	20020402	JP 2000-541152	19990331 <--
	NZ 507204	A	20031219	NZ 1999-507204	19990331 <--
	RU 2230740	C2	20040620	RU 2000-127105	19990331 <--
	NZ 525108	A	20050225	NZ 1999-525108	19990331 <--
	ZA 2000005149	A	20020108	ZA 2000-5149	20000926 <--
	NO 2000004912	A	20001123	NO 2000-4912	20000929 <--
PRAI	US 1998-80133P	A1	19980331 <--		
	WO 1999-US7057	W	19990331 <--		

OS MARPAT 131:243187
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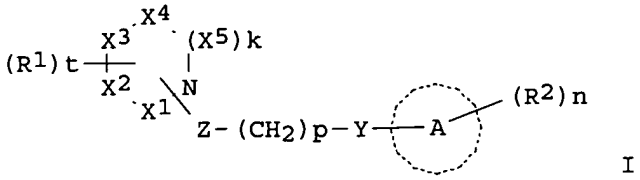

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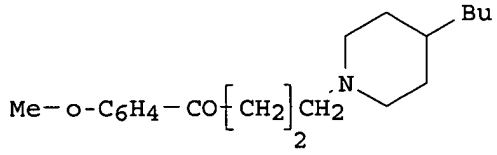

II

AB Compds. and methods are provided for the alleviation or treatment of diseases or conditions in which modification of muscarinic m1 receptor activity has a beneficial effect. In the method, a therapeutically effective amount of a selective muscarinic m1 agonist title compds. I (X1 - x5 = C, N, O; R1 = alkyl, alkenyl, etc; A = aryl, cycloalkyl, each optionally comprising 1 or more heteroatoms; R2 = H, amino, etc.; n = 0 - 4; Y = O, S, etc.; Z is CR8R9; R8, R9 = H, alkyl, a proviso is given; p = 0 -5; t = 0 - 2; k = 0 or 1) are prepared and administered to a patient in need of such treatment. Compound II (prepared) only activated the m1 receptor subtype, at which it was a potent partial agonist.

IT **244291-76-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of piperidine derivs. with activity on muscarinic receptors)

IT **75-05-8**, Acetonitrile, reactions **109-04-6**, 2-Bromopyridine **109-72-8**, n-Butyllithium, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of piperidine derivs. with activity on muscarinic receptors)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Archibald, J	1977			US 4045566 A	HCAPLUS
Britton, S	1954	43	641	JOURNAL OF THE AMERI	MEDLINE
Ciba	1965			FR 1382425 A	HCAPLUS
Janssen, C	1962			BE 610830 A	HCAPLUS
Kaiser, C	1993	36	610	JOURNAL OF MEDICINAL	HCAPLUS
Knoll A G Chemische Fab	1961			GB 874206 A	HCAPLUS
Les Laboratoires Brunea				FR 1543944 A	HCAPLUS
Schering Corp	1996			WO 9626196 A	HCAPLUS
Schering Corp	1998			WO 9805292 A	HCAPLUS
Schering Corp	1998			WO 9806697 A	HCAPLUS
Schipper, E	1969			FR 1570446 A	HCAPLUS
Sumitomo Chemical Co	1973			DE 2259004 A	HCAPLUS
Swain, A	1954			US 2695295 A	HCAPLUS
Wyeth John & Brother Lt	1975			FR 2261008 A	HCAPLUS

L143 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:764290 HCAPLUS
DN 130:25077
TI Preparation of piperidinylpropylaminocarbonyldihydropyrimidones and related compounds as selective adrenergic α1A receptor antagonists.
IN Wong, Wai C.; Lagu, Bharat; Nagarathnam, Dhanapalan; Marzabadi, Mohammad R.; Gluchowski, Charles
PA Synaptic Pharmaceutical Corporation, USA
SO PCT Int. Appl., 314 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851311	A2	19981119	WO 1998-US10082	19980515 <--
	WO 9851311	A3	19990114		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6245773	B1	20010612	US 1997-858017	19970516 <--
	AU 9876872	A1	19981208	AU 1998-76872	19980515 <--
	US 2002010186	A1	20020124	US 2001-855597	20010515 <--
PRAI	US 1997-858017	A	19970516 <--		
	US 1996-17801P	P	19960516 <--		
	WO 1998-US10082	W	19980515 <--		

OS MARPAT 130:25077
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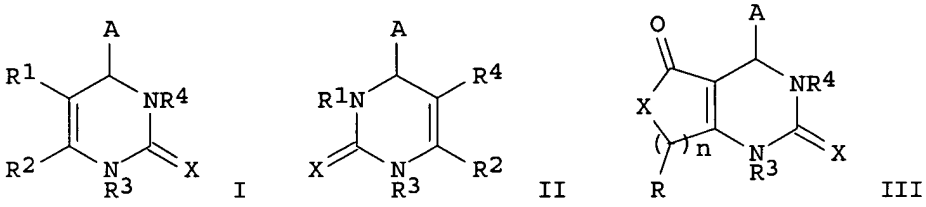

AB Title compds. [I, II, III; A = specified (substituted) (hetero)aryl; X = S, O, NR3; R1 = H, NO2, cyano, alkyl, fluoroalkyl, alkenyl, alkynyl, cycloalkyl, fluorocycloalkyl, cycloalkenyl, N(R3)2, OR3, COR3, CO2R3, CON(R3)2; R2 = H, alkyl, hydroxyalkyl, alkoxyalkyl, aminoalkyl, fluoroalkyl, alkenyl, alkynyl, cycloalkyl, fluorocycloalkyl, cycloalkenyl, cycloalkylalkyl, cyano, OR3, etc.; R3 = H, alkyl, fluoroalkyl, alkenyl, alkynyl, cycloalkyl, fluorocycloalkyl, cycloalkenyl; R4 = specified substituted heterocyclylpiperidinylalkyl, etc.; n = 0-5], were prepared I are useful for lowering intraocular pressure, inhibiting cholesterol synthesis, relaxing lower urinary tract tissue, treatment of benign prostatic hyperplasia, impotency, cardiac arrhythmia, etc. Thus, (+)-5-carboxamido-4-ethyl-1-[N-[3-(4-methoxycarbonyl-4-phenylpiperidin-1-yl)propyl]]carboxamido-6-(4-nitrophenyl)-2-oxo-1,2,3,6-tetrahydropyrimidine (preparation given) bound to human α1A receptors with pKi = 9.74.
IT **200050-54-0P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(preparation of piperidinylpropylaminocarbonyldihydropyrimidones as selective adrenergic α1A receptor antagonists)

IT **179481-50-6P 179481-51-7P 179481-56-2P**
179481-57-3P 179481-59-5P 179481-60-8P
179481-61-9P 179481-62-0P 179481-63-1P
179481-79-9P 179481-81-3P 179481-82-4P
200050-50-6P 200050-53-9P 200050-58-4P
200050-59-5P 200050-60-8P 200050-63-1P
200050-76-6P 200051-10-1P 200051-14-5P
200051-18-9P 200051-19-0P 200051-35-0P
200051-36-1P 200051-37-2P 200200-23-3P
216310-03-1P 216310-05-3P 216310-11-1P
216310-13-3P 216310-15-5P 216310-17-7P
216310-20-2P 216310-51-9P 216310-52-0P
216310-84-8P 216310-86-0P 216311-41-0P
216311-42-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of piperidinylpropylaminocarbonyldihydropyrimidones as selective adrenergic α1A receptor antagonists)

IT **107-13-1**, 2-Propenenitrile, reactions **581-47-5**, 2,4'-Dipyridyl **626-55-1**, 3-Bromopyridine **917-54-4**, Methyllithium **2739-97-1**, 2-Pyridylacetonitrile **5470-18-8**, 2-Chloro-3-nitropyridine **200052-50-2**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of piperidinylpropylaminocarbonyldihydropyrimidones as selective adrenergic α1A receptor antagonists)

IT **30532-37-7P**, 4-(2-Pyridyl)piperidine **50461-59-1P**
138828-89-4P, 1-Benzyl-4-(2-pyridyl)piperidine
179482-21-4P, 1-Benzyl-4-cyano-4-(2-pyridyl)piperidine
179482-22-5P 179482-23-6P 179482-32-7P
179482-33-8P 179482-43-0P 179482-51-0P
179482-68-9P 179482-69-0P 179482-73-6P
179482-74-7P 179482-82-7P 179482-85-0P
179482-89-4P 179483-08-0P, 1-(3-Hydroxypropyl)-4-(2-pyridyl)piperidine **189129-78-0P 200051-85-0P**
216310-97-3P 216311-04-5P 216311-23-8P
216311-24-9P 216311-25-0P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of piperidinylpropylaminocarbonyldihydropyrimidones as selective adrenergic α1A receptor antagonists)

L143 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:102853 HCAPLUS
DN 128:167432
TI Preparation of 6-phenyltetrahydro-1,3-oxazin-2-one derivatives as phosphodiesterase IV inhibitors
IN Ina, Shinji; Yamana, Kenjiro; Noda, Kyoji
PA Nikken Chemicals Co., Ltd., Japan
SO PCT Int. Appl., 158 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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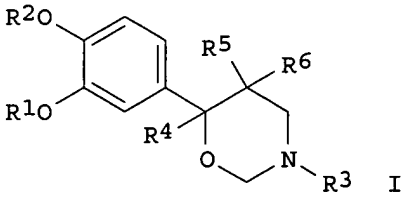
PI WO 9804534 A1 19980205 WO 1997-JP2654 19970730 <--
W: CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 928789 A1 19990714 EP 1997-933853 19970730 <--
EP 928789 B1 20040929
R: CH, DE, FR, GB, IT, LI
JP 3192662 B2 20010730 JP 1998-508704 19970730 <--
CA 2262502 C 20021126 CA 1997-2262502 19970730 <--
CA 2262502 AA 19980205
US 6251897 B1 20010626 US 1999-230869 19990201 <--
PRAI JP 1996-216926 A 19960731 <--
WO 1997-JP2654 W 19970730 <--
OS MARPAT 128:167432
GI



I

AB The title 6-Phenyltetrahydro-1,3-oxazin-2-one derivs. represented by general formula (I; R1 = optionally substituted C1-8 alkyl, C3-7 cycloalkyl, or heterocyclyl, polycyclic hydrocarbyl; R2 = C1-4 alkyl; R3, R5, R6 = H, optionally substituted alkyl or C3-7 cycloalkyl, acyl, aryl optionally substituted and optionally containing at least one hetero atom selected from O, S, and S; R4 = H, optionally substituted C1-6 alkyl, aryl optionally substituted and optionally containing at least one hetero atom selected from O, S, and S), optically active substances thereof, pharmacol. acceptable salts thereof or their hydrates or solvates are prepared Also claimed are medicinal compns. containing the same, in particular preventives or remedies for inflammatory diseases and antiasthmatics,. These derivs. have potent effects of inhibiting phosphodiesterase (PDE) IV and bronchodilating and antiinflammatory effects and are useful for the treatment of asthma, inflammation such as dermatitis, multiple sclerosis, and autoimmune diseases such as rheumatism. Thus, 3-amino-1-(3,4-dimethoxyphenyl)-1-propanol was acylated by Me chloroformate in the presence of Et3N in THF at room temperature for 5.5 h to give 3-(methoxycarbonylamino)-1-(3,4-dimethoxyphenyl)-1-propanol , which was cyclized by treatment with NaH in benzene at room temperature to give I (R1 = R2 = Me, R3 - R6 = H). The latter compound and I (R1 = 2-indanyl, R2 = R3 = R6 = Me, R4 = R5 = H) in vitro showed IC50 of 1.0+10-5 and 6.6+10-8 M, resp., against phosphodiesterase IV. I (R1 = Me2CHCH2, R2 = R4 = Me, R3 = R5 = R6 = H) showed ED50 of 0.028 mg/kg i.v. for inhibiting egg albumin-induced constriction of air way in guinea pigs. Pharmaceutical compns., e.g., a tablet formulation containing I (R1 = cyclopentyl, R2 = R4 = Me, R3 = R5 = R6 = H), were prepared

IT **202847-53-8P 202847-57-2P 202847-60-7P**
202847-64-1P 202847-66-3P 202847-80-1P
202847-83-4P 202847-99-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of phenyltetrahydrooxazinone derivs. as phosphodiesterase IV inhibitors as antiinflammatory and antiasthmatic agents)

IT **75-05-8**, Acetonitrile, reactions **78-82-0**,

Isobutyronitrile **103-74-2**, 2-(2-Pyridyl)ethanol **109-04-6**, 2-Bromopyridine **109-72-8**, Butyllithium, reactions **591-51-5**, Phenyllithium **626-55-1**, 3-Bromopyridine **1822-51-1**, 4-Chloromethylpyridine hydrochloride **2786-07-4**, 2-Thienyllithium **3747-74-8**, 2-Chloromethylquinoline hydrochloride **6959-47-3**, 2-Chloromethylpyridine hydrochloride **6959-48-4**, 3-Chloromethylpyridine hydrochloride
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of phenyltetrahydrooxazinone derivs. as phosphodiesterase IV inhibitors as antiinflammatory and antiasthmatic agents)

IT **187970-51-0P**, 4-Methoxy-3-[2-(2-pyridyl)ethoxy]benzaldehyde **202848-55-3P**, 3-(3-Cyclopentyloxy-4-methoxybenzoyl)pyridine **202848-56-4P 202848-57-5P**, 2-(3-Cyclopentyloxy-4-methoxybenzoyl)pyridine **202848-58-6P 202848-67-7P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of phenyltetrahydrooxazinone derivs. as phosphodiesterase IV inhibitors as antiinflammatory and antiasthmatic agents)

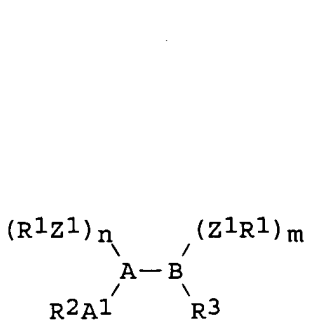
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Pfizer Inc	1995			US 5459145 A	HCAPLUS

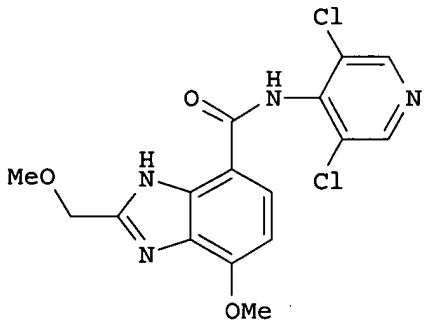
L143 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:31305 HCAPLUS
DN 128:102087
TI Substituted azabicyclic compounds and their use as inhibitors of the production of TNF and cyclic AMP phosphodiesterase
IN Cox, Paul Joseph; Bower, Shelley; Aldous, David John; Astles, Peter Charles; McGarry, Daniel Gerard; Hulme, Christopher; et al.
PA Regan, John Robinson, UK; Huang, Fu-Chih; Rhone-Poulenc Rorer Ltd.; Cox, Paul Joseph; Bower, Shelley; et al.
SO PCT Int. Appl., 355 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9748697	A1	19971224	WO 1997-GB1639	19970619 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2258728	AA	19971224	CA 1997-2258728	19970619 <--
	AU 9731026	A1	19980107	AU 1997-31026	19970619 <--
	ZA 9705446	A	19981221	ZA 1997-5446	19970619 <--
	EP 934307	A1	19990811	EP 1997-926148	19970619 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	JP 2000509719	T2	20000802	JP 1998-502503	19970619 <--
	US 6303600	B1	20011016	US 1998-216392	19981218 <--
	US 6800645	B1	20041005	US 2000-612530	20000707 <--
	US 2002173527	A1	20021121	US 2002-109629	20020328 <--
	US 2005038069	A1	20050217	US 2004-933077	20040901 <--
PRAI	GB 1996-12760	A	19960619 <--		
	US 1996-23047P	P	19960802 <--		
	WO 1997-GB1639	W	19970619 <--		
	US 1998-216392	A1	19981218 <--		

US 2000-612530 A3 20000707 <--
OS MARPAT 128:102087
GI



I



II

AB The invention is directed to physiol. active compds. of formula I [wherein AB = fused bicyclic ring system, of approx. 10-13 ring members, wherein A = azaheterocycle ring and B = azaheteroaryl or optionally halo-substituted benzene ring; R1 = H, (hydroxy- or halo-substituted) alkyl, and also alkenyl, alkynyl, or CHO when Z1 = bond; R2 = H, alkenyl, alkoxy, alkyl, aryl, aryloxy, cyano, etc.; R3 = wide variety of sidechains and functional groups; A1 = bond, (un)substituted alkylene, alkenylene, alkynylene; Z1 = bond, O, S, NH; m, n = 0, 1; provided that (n+m) = 1] and their N-oxides, prodrugs, and pharmaceutically acceptable salts and solvates. I inhibit the production or physiol. effects of TNF, and inhibit cAMP phosphodiesterase (PDE IV). The invention is also directed to pharmaceutical compns. comprising I, their pharmaceutical use, and methods for their preparation For instance, 7-methoxy-2-(methoxymethyl)-3H-benzimidazole-4-carboxylic acid (preparation given) was treated with O-benzotriazol-1-yl-N,N,N',N'-bis(tetramethylene)uronium tetrafluoroborate to give the 1-benzotriazolyl ester, which was amidated with 4-amino-3,5-dichloropyridine in THF (after treatment of the latter with Na diethylaluminate) to give the title compound II. Compds. I had IC50 of 10-5 to 10-10 M against guinea pig macrophage PDE IV, with 50- to 10,000-fold selectivity for PDE IV vs. PDE I, II, III, or V. The compds. also inhibited antigen-induced bronchoconstriction in rats by up to 89% at oral doses of 10 mg/kg.

IT **201286-60-4P 201286-63-7P 201286-64-8P**
201286-65-9P 201286-66-0P 201286-67-1P
201287-16-3P 201287-75-4P 201287-77-6P
201304-14-5P 201304-15-6P
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(intermediate; preparation of azabicyclic compds. as inhibitors of TNF production and PDE IV)

IT **201284-92-6P 201284-97-1P 201284-99-3P**
201285-01-0P 201285-04-3P 201285-06-5P
201285-12-3P 201285-19-0P 201285-22-5P
201285-55-4P 201285-57-6P 201285-59-8P
201285-78-1P 201285-80-5P 201286-21-7P
201286-24-0P 201286-25-1P 201286-26-2P
201286-27-3P 201286-31-9P 201286-32-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **RCT (Reactant)**; **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; **RACT (Reactant or reagent)**; USES (Uses)
(preparation of azabicyclic compds. as inhibitors of TNF production and PDE IV)

IT **201284-93-7P 201284-94-8P 201284-95-9P**

201284-98-2P 201285-00-9P 201285-02-1P
201285-03-2P 201285-05-4P 201285-07-6P
201285-08-7P 201285-09-8P 201285-10-1P
201285-11-2P 201285-13-4P 201285-14-5P
201285-15-6P 201285-16-7P 201285-17-8P
201285-18-9P 201285-28-1P 201285-33-8P
201285-34-9P 201285-35-0P 201285-36-1P
201285-37-2P 201285-38-3P 201285-39-4P
201285-40-7P 201285-41-8P 201285-42-9P
201285-43-0P 201285-44-1P 201285-45-2P
201285-46-3P 201285-47-4P 201285-49-6P
201285-51-0P 201285-53-2P 201285-61-2P
201285-68-9P 201285-69-0P 201285-70-3P
201285-71-4P 201285-72-5P 201285-73-6P
201285-74-7P 201285-75-8P 201285-76-9P
201285-77-0P 201285-79-2P 201285-81-6P
201285-82-7P 201285-83-8P 201285-84-9P
201285-85-0P 201285-86-1P 201285-87-2P
201285-88-3P 201285-90-7P 201285-91-8P
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201286-04-6P 201286-05-7P 201286-06-8P
201286-07-9P 201286-08-0P 201286-09-1P
201286-10-4P 201286-11-5P 201286-12-6P
201286-13-7P 201286-14-8P 201286-15-9P
201286-16-0P 201286-17-1P 201286-18-2P
201286-19-3P 201286-20-6P 201286-22-8P
201286-23-9P 201286-30-8P 201286-35-3P
201286-36-4P 201286-37-5P 201286-38-6P
201286-39-7P 201286-40-0P 201286-41-1P
201286-42-2P 201286-43-3P 201286-44-4P
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201286-51-3P 201286-52-4P 201286-53-5P
201286-54-6P 201286-55-7P 201286-56-8P
201286-57-9P 201286-58-0P 201286-59-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of azabicyclic compds. as inhibitors of TNF production and PDE IV)

IT **75-05-8**, Acetonitrile, reactions **78-82-0**, Isobutyronitrile **100-47-0**, Benzonitrile, reactions **108-89-4**, 4-Picoline **10400-19-8**, Nicotinyl chloride **14248-66-9 19798-77-7**, 4-Amino-3-chloropyridine **22889-78-7**, 4-Amino-3,5-dichloropyridine **43078-60-0** **52200-48-3**, 3-Bromo-2-chloropyridine **90145-48-5** **91872-02-5 100868-46-0**, 3,5-Dichloro-4-methylpyridine **183795-64-4**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(starting material; preparation of azabicyclic compds. as inhibitors of TNF production and PDE IV)

L143 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:41948 HCAPLUS
DN 126:59875
TI Preparation of beta-heterocyclyl-alpha, beta-unsaturated ketone derivatives as inhibitors of interleukin 1 production
IN Tanaka, Masayuki; Okita, Makoto; Miyamoto, Mitsuaki; Kaneko, Toshihiko; Kawahara, Tetsuya; Akamatsu, Keishi; Chiba, Kenichi; Obaishi, Hiroshi;

Sakurai, Hideki; Abe, Shinya; Kobayashi, Seiichi; Yamanaka, Takashi
PA Eisai Co., Ltd., Japan
SO PCT Int. Appl., 254 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9636608	A1	19961121	WO 1996-JP1330	19960520 <--
W: CA, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 08311032	A2	19961126	JP 1995-142394	19950518 <--
PRAI JP 1995-142394	A	19950518 <--		

OS MARPAT 126:59875
GI For diagram(s), see printed CA Issue.
AB α,β-Unsatd. ketone derivs. represented by general formula RCH:CHCOR1 [R = Q, Q1; wherein Z = NH, O, S; ring B = an optionally substituted aromatic ring; R2 = H, halo, optionally halogenated lower alkyl, etc.; R3 = H, optionally halogenated lower alkyl, cycloalkyl optionally having heteroatom(s), alkoxyalkyl, optionally substituted aryl, optionally substituted heteroaryl, etc.; R1 = CR4R5R6; wherein R4, R5 = H, optionally halogenated lower alkyl, etc.; R6 = H, optionally halogenated lower alkyl, cycloalkyl optionally having heteroatom(s), optionally substituted aryl, optionally substituted heteroaryl, etc.] or pharmacol. acceptable salts thereof, which are useful for the prevention and treatment of interleukin 1 production-related diseases, e.g. inflammation, are prepared Thus, 1.68 g 7-ethyl-4-methoxymethoxy-3,5,8-trimethoxy-2-quinolinecarboxaldehyde and 1.0 g 3-hydroxy-3-methyl-2-butanone were dissolved in MeOH, treated with 0.21 g LiOH.H2O and heated at 50-60° for 1 h to give, after treatment of the product with 1 N aqueous HCl in EtOAc, the title quinolinylbutenone derivative (I; R7 = R10 = OMe, R8 = H, R9 = Et, R11 = CMe2OH). The latter compound and I (R7 = R9 = R10 = H, R8 = Cl, R2 = R11 = Me) showed IC50 of 1.08 and <0.1 nM, resp., for inhibiting the production of interleukin 1α in human peripheral monocyte and 0.92 and <0.1 nM, resp., for inhibiting the production of interleukin 1β in human peripheral monocyte.
IT **185205-72-5P 185205-75-8P 185206-18-2P**
185206-19-3P 185206-28-4P 185206-31-9P
185206-49-9P 185206-50-2P 185206-51-3P
185206-52-4P 185206-53-5P 185206-54-6P
185206-55-7P 185206-56-8P 185206-57-9P
185206-58-0P 185206-59-1P 185206-60-4P
185206-61-5P 185206-63-7P 185206-65-9P
185206-67-1P 185206-69-3P 185206-70-6P
185206-71-7P 185206-72-8P 185206-73-9P
185206-74-0P 185206-75-1P 185206-76-2P
185206-77-3P 185206-78-4P 185206-79-5P
185206-80-8P 185206-81-9P 185206-82-0P
185206-83-1P 185206-84-2P 185206-85-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of β-heterocyclyl-α, β-unsatd. ketone derivs. as inhibitors of interleukin 1 production)
IT **107-13-1**, 2-Propenenitrile, reactions **109-04-6**, 2-Bromopyridine **626-55-1**, 3-Bromopyridine **6867-30-7**, **Lithium** acetylide-ethylenediamine complex **24782-42-1** **39931-77-6**, Ethyl 3-pyridylacetate **185208-07-5** **185208-09-7**, 4,6-Dichloro-3-methyl-2-quinolinecarboxaldehyde **185208-13-3**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**

(preparation of β-heterocyclyl-α, β-unsatd. ketone derivs. as inhibitors of interleukin 1 production)

IT **120690-70-2P 185206-93-3P 185207-06-1P**
185207-07-2P 185207-08-3P 185207-23-2P
185207-24-3P 185207-26-5P 185207-27-6P
185207-31-2P 185207-32-3P 185207-33-4P
185207-39-0P 185207-40-3P 185207-41-4P
185207-42-5P 185207-43-6P 185207-44-7P
185207-45-8P 185207-46-9P 185207-47-0P
185207-48-1P 185207-49-2P 185207-50-5P
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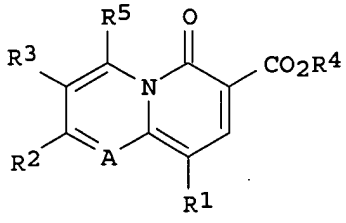
185207-76-5P 185207-77-6P 185207-78-7P
185207-79-8P 185207-80-1P 185207-81-2P
185207-83-4P 185207-84-5P 185207-85-6P
185207-86-7P 185207-87-8P 185208-01-9P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of β-heterocyclyl-α, β-unsatd. ketone derivs. as inhibitors of interleukin 1 production)

L143 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:754424 HCAPLUS
DN 126:101707
TI Synthesis of quinolizinone-type antibacterial compounds
IN Chu, Daniel T.; Li, Qun; Cooper, Curt S.; Fung, Anthony K. L.; Lee, Cheuk M.; Plattner, Jacob J.
PA Abbott Laboratories, USA
SO U.S., 115 pp., Cont.-in-part of U.S. Ser. No. 137,236, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5580872	A	19961203	US 1994-316319	19940930 <--
	US 5599816	A	19970204	US 1995-482249	19950607 <--
	US 5726182	A	19980310	US 1995-484632	19950607 <--
PRAI	US 1990-517780	B2	19900502 <--		
	US 1992-940870	B2	19921027 <--		
	US 1993-137236	B2	19931014 <--		
	US 1994-316319	A2	19940930 <--		
	US 1995-469159	A3	19950606 <--		

OS MARPAT 126:101707
GI



I

AB Antibacterial quinolizinones and related compds. [I; R1 = (halo)alkyl, alkenyl, alkynyl, alkoxy, C3-8 cycloalkyl, (substituted) Ph, halo, CN, NO2, bicycloalkyl, N-containing aromatic heterocyclyl, etc.; R2 = alkyl, alkenyl, C3-8 cycloalkyl, C4-8 cycloalkenyl, NH2, :NH, alkylamino, (substituted) Ph, N-containing bicyclic or aromatic heterocyclyl, etc.; R3 = H, halo, alkoxy; R4 = H, alkyl, cation, prodrug ester group; R5 = H, halo, OH, alkyl, haloalkyl, alkoxy, (substituted) amino; A = N, CR6; R6 = halo, (substituted) alkyl, alkoxy] are prepared for use in pharmaceutical compns. for treatment of bacterial infections. Thus, 3-fluoro-9-(4-fluorophenyl)-2-(4-methylpiperazin-1-yl)-6H-6-oxopyrido[1,2-a]pyrimidine-7-carboxylic acid (II) showed a MIC of 0.39 and 0.1 μg/mL in vitro against Staphylococcus aureus A5177 and Pseudomonas aeruginosa BMH10, resp. II was prepared in 6 steps from 5-fluoro-2-(4-fluorobenzyl)-4-hydroxypyrimidine (preparation given).

IT **169748-87-2P 169749-12-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(synthesis of quinolizinone-type antibacterial compds.)

IT **107-12-0**, Propionitrile **700-16-3**, Pentafluoropyridine **931-19-1 1735-84-8**, 3-Chlorotetrafluoropyridine **1822-00-0**, Trimethylsilylmethyllithium **3731-52-0**, 3-(Aminomethyl)pyridine **4548-45-2**, 2-Chloro-5-nitropyridine **33403-97-3 34803-66-2 52026-98-9**, 4-Chlorotetrafluoropyridine **150281-45-1**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(synthesis of quinolizinone-type antibacterial compds.)

IT **3430-14-6P**, 5-Amino-2-picoline **3678-63-5P**, 4-Chloro-2-picoline **18368-63-3P**, 6-Chloro-2-picoline **21203-68-9P**, 5-Nitro-2-picoline **31181-53-0P**, 5-Fluoro-2-picoline **45673-79-8P 93856-98-5P**, 4-Chloro-2-propylpyridine **101192-15-8P 102297-41-6P 113209-88-4P 113209-89-5P 131189-22-5P 139161-27-6P**, 4-Chloro-5-fluoro-2-propylpyridine **139161-28-7P 139161-29-8P 155562-25-7P 169749-81-9P 169749-82-0P 169749-83-1P 169749-84-2P 169749-85-3P 169749-86-4P 169749-87-5P 169749-88-6P 169749-90-0P 169749-95-5P 169749-96-6P 169749-97-7P 169749-98-8P 169750-03-2P 169750-04-3P 169750-05-4P 169750-08-7P 169750-09-8P 169750-10-1P 169750-35-0P 169750-36-1P 169750-37-2P 169750-43-0P 169750-44-1P 169750-45-2P 169750-46-3P 169750-47-4P 169750-48-5P 169750-50-9P 169750-95-2P**, 4-Chloro-5-fluoro-2-picoline **185691-80-9P 185691-93-4P 185692-02-8P 185692-13-1P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(synthesis of quinolizinone-type antibacterial compds.)

L143 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:672946 HCAPLUS
DN 126:47225
TI Preparation of substituted heterocyclylisoquinolinium salts for the treatment and prevention of neurodegenerative disorders or neurotoxic injuries
IN Dority, John A., Jr.; Earley, William G.; Kumar, Virendra; Mallamo, John P.; Miller, Matthew S.; Subramanyam, Chakrapani
PA Sterling Winthrop Inc., USA
SO U.S., 58 pp., Cont.-in-part of U.S. Ser. No. 121,389, abandoned.

CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5569655	A	19961029	US 1994-283319	19940729 <--
	EP 647641	A1	19950412	EP 1994-202603	19940910 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CA 2131967	AA	19950315	CA 1994-2131967	19940913 <--
	AU 9472941	A1	19950330	AU 1994-72941	19940913 <--
	AU 685821	B2	19980129		
	HU 68092	A2	19950529	HU 1994-2629	19940914 <--
	JP 07224065	A2	19950822	JP 1994-219974	19940914 <--
	US 5604224	A	19970218	US 1995-452941	19950530 <--
PRAI	US 1993-121389	B2	19930914 <--		
	US 1994-283319	A	19940729 <--		

OS MARPAT 126:47225
GI For diagram(s), see printed CA Issue.
AB The title compds. [I; R1 = H, lower alkyl; R2, R3 = H, lower alkyl; R2R3 = cycloalkyl, lower alkylidene; R4, R5 = lower alkynyl, lower alkoxy, (un)substituted Ph, etc.; R6 = H, lower alkyl, halo, etc.; A = (un)substituted 5- or 6-membered monocyclic aromatic heterocycle (together with C and N atoms to which it is attached); X- = anion; p = 0 when R6 is neg. charged radical; p = 1 when R6 = other than neg. charged radical], useful in the treatment or prevention of neurodegenerative disorders such as Huntington's disease, Alzheimer's disease, amyotrophic lateral sclerosis, Down's Syndrome, senile dementia, multi-infarct dementia and Parkinson's disease, as well as in the treatment or prevention of neurotoxic injuries associated with, e.g., stroke, carbon monoxide poisoning, hyperinsulinemia and cardiac arrest, were prepared Thus, reaction of thiazolo[3,2-b]isoquinolinium perchlorate with 2,2-dimethyl-1,1-diethoxyethylene in MeCN under reflux followed by conversion of the corresponding perchlorate to chloride afforded II which showed IC50 of 173 nM against NMDA-induced neurotoxicity.
IT **78-82-0**, Isobutyronitrile **591-51-5**, Phenyllithium
626-05-1, 2,6-Dibromopyridine **626-55-1**, 3-Bromopyridine
19524-06-2, 4-Bromopyridine hydrochloride
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of substituted heterocyclylisoquinolinium salts for the treatment and prevention of neurodegenerative disorders or neurotoxic injuries)
IT **1120-87-2P**, 4-Bromopyridine **6918-15-6P**
35779-35-2P 42772-87-2P 161227-84-5P
161227-85-6P 169377-33-7P 169377-34-8P
170486-59-6P
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**;
PREP (Preparation); **RACT (Reactant or reagent)**
(preparation of substituted heterocyclylisoquinolinium salts for the treatment and prevention of neurodegenerative disorders or neurotoxic injuries)

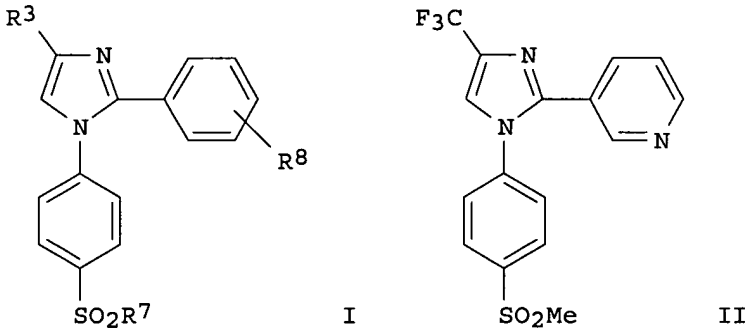
L143 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:363276 HCAPLUS
DN 125:33646
TI 1,2-Substituted imidazolyl compounds for the treatment of inflammation
IN Khanna, Ish K.; Weier, Richard M.; Collins, Paul W.; Yu, Yi; Xu, Xiangdong; Huff, Renee M.; Partis, Richard A.; Koszyk, Francis J.
PA G.D. Searle and Co., USA
SO PCT Int. Appl., 249 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9603388	A1	19960208	WO 1995-US9506	19950727 <--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5616601	A	19970401	US 1995-464154	19950605 <--
	AU 9532025	A1	19960222	AU 1995-32025	19950727 <--
	EP 772600	A1	19970514	EP 1995-928164	19950727 <--
	EP 772600	B1	20020918		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	JP 10503211	T2	19980324	JP 1995-505972	19950727 <--
	AT 224374	E	20021015	AT 1995-928164	19950727 <--
	AU 767993	B2	20031127	AU 2001-11100	20010109 <--
	US 2003036557	A1	20030220	US 2001-4944	20011205 <--
	US 6613789	B2	20030902		
PRAI	US 1994-282395	A	19940728 <--		
	US 1995-464154	A	19950605 <--		
	WO 1995-US9506	W	19950727 <--		
	AU 1997-15739	A3	19970124 <--		
	WO 1997-US300	W	19970124 <--		
	US 1999-101493	B1	19990602 <--		

OS MARPAT 125:33646

GI



I II

AB A class of imidazolyl compds., which are selective inhibitors of cyclooxygenase 2 (COX 2), is described. The compds. are useful in treating inflammation and related disorders (arthritis, fever, and pain). Compds. of particular interest are I [R3 = H, (un)substituted alkyl, aralkyl, heterocycloalkyl, acyl, cyano, alkoxy, alkylthio, cycloalkoxy, halo, substituted carbonyl, sulfonyl, oxy, thio, aryl, and heteroaryl; R7 = alkyl or amino; R8 = ≥ 1 of H, halo, alkyl, haloalkyl, alkoxy, amino, haloalkoxy, cyano, CO2H, OH, hydroxyalkyl, alkoxyalkyl, alkylamino, nitro, and alkylthio], as well as certain heterocyclic analogs. For instance, condensation of 4-(methylsulfonyl)aniline-HCl with 3-cyanopyridine in the presence of Me3Al (34%), followed by cyclization of the resultant amidine with BrCH2COCF3 (60%), and dehydration of the obtained hydroxydihydroimidazole derivative using p-MeC6H4SO3H (23%), gave title compound II. In the carrageenan-induced rat paw edema and analgesia tests, II gave 57% inhibition of edema at 30 mg/kg orally, and 51%

inhibition of hyperalgesic foot withdrawal at 10 mg/kg orally. Inhibition data for recombinant COX 1 and 2 are also given.

IT **70-57-5P**, 5-Methyl-3-pyridinecarboxamide **1620-76-4P**, 2-Cyano-4-methylpyridine **1620-77-5P**, 5-Methyl-2-cyanopyridine **1721-23-9P**, 3-Cyano-2-methylpyridine **3222-49-9P**, 5-Methylnicotinic acid **42885-14-3P**, 3-Cyano-5-methylpyridine **58539-65-4P**, 2-Methylnicotinamide **177662-36-1P** **177662-37-2P** **177662-46-3P** **177662-47-4P** **177662-48-5P** **177662-49-6P** **177662-50-9P** **177662-51-0P** **177662-52-1P** **177662-53-2P** **177662-54-3P** **177662-55-4P** **177662-56-5P** **177662-57-6P** **177662-58-7P** **177662-59-8P** **177662-60-1P** **177662-61-2P** **177662-62-3P** **177662-63-4P** **177662-64-5P** **177662-69-0P** **177662-70-3P** **177662-71-4P** **177662-72-5P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(intermediate; preparation of imidazole derivs. as antiinflammatories)

IT **177660-77-4P** **177660-80-9P** **177660-83-2P** **177660-88-7P** **177660-93-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(preparation of imidazole derivs. as antiinflammatories)

IT **177660-70-7P** **177660-78-5P** **177660-79-6P** **177660-81-0P** **177660-82-1P** **177660-84-3P** **177660-85-4P** **177660-86-5P** **177660-87-6P** **177660-89-8P** **177660-92-3P** **177660-94-5P** **177660-95-6P** **177661-63-1P** **177661-64-2P** **177661-65-3P** **177661-68-6P** **177661-93-7P** **177661-94-8P** **177661-95-9P** **177661-96-0P** **177661-97-1P** **177661-98-2P** **177661-99-3P** **177662-00-9P** **177662-01-0P** **177662-02-1P** **177662-03-2P** **177662-04-3P** **177662-05-4P** **177662-06-5P** **177662-07-6P** **177662-08-7P** **177662-09-8P** **177662-10-1P** **177662-11-2P** **177662-12-3P** **177662-13-4P** **177662-14-5P** **177662-15-6P** **177662-16-7P** **177662-17-8P** **177662-18-9P** **177662-19-0P** **177662-20-3P** **177662-21-4P** **177662-22-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of imidazole derivs. as antiinflammatories)

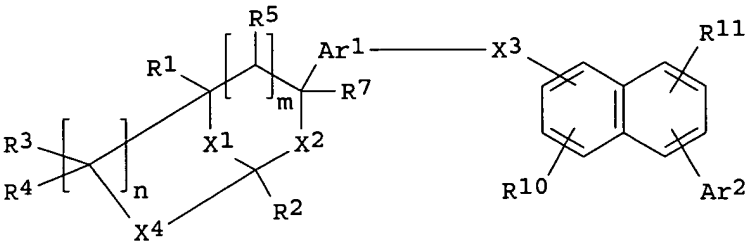
IT **100-47-0**, Benzonitrile, reactions **100-48-1**, 4-Cyanopyridine **100-54-9**, 3-Cyanopyridine **100-70-9**, 2-Cyanopyridine **591-22-0**, 3,5-Lutidine **917-54-4**, Methyllithium **1003-67-4**, 4-Picoline N-oxide **1620-75-3**, 6-Methyl-2-cyanopyridine **2369-19-9**, 2-Fluoro-5-methylpyridine **3222-48-8**, 6-Methyl-3-cyanopyridine **3222-56-8**, 2-Methylnicotinic acid **4377-41-7**, 2-(Chloromethyl)quinoline **15871-85-9**, 6-Methoxy-3-cyanopyridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(starting material; preparation of imidazole derivs. as antiinflammatories)

L143 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:994328 HCAPLUS
DN 124:86991
TI Preparation of 6,8-dioxabicyclo[3.2.1]octanes as inhibitors of leukotriene biosynthesis.
IN Delorme, Daniel; Fortin, Rejean; Friesen, Richard; Girard, Yves; Leger,

Serge; Chauret, Nathalie; Nicoll-Griffith, Deborah; Yergey, James
PA Merck Frosst Canada Inc., Can.
SO Can. Pat. Appl., 113 pp.
CODEN: CPXXEB
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CA 2138631	AA	19950629	CA 1994-2138631	19941220 <--
PRAI US 1993-174557	A	19931228 <--		

OS MARPAT 124:86991
GI



I

AB Title compds. [I; R1, R5 = H, OH, alkyl, alkoxy; R2 = H, alkyl; R3 = H, OH, alkyl, alkoxy, alkylthio, F, CF3; R4 = alkyl, F, CF3; R3R4 = O, atoms to form a saturated 3-8 membered carbocyclic ring; R7 = H, OH, alkyl, alkoxy, alkylthio, alkylcarbonyloxy, etc.; R10, R11 = H, alkyl, alkoxy, OH, alkyl, alkylthio, alkylcarbonyl, cyano, NO2, CF3, N3, etc.; Ar1 = (substituted) 5- or 6-membered arylene, etc.; Ar2 = Ar1, bicyclic 8-10 membered arylene; m = 0, 1; n = 1, 2; X1, X4 = O, S; X2 = O, S, (substituted) CH2, bond; X3 = S, (substituted) OCH2], were prepared Thus, (1S,5S)-6-[3-(7,7-dimethyl-3a-hydroxy-6,8-dioxabicyclo[3.2.1]octyl)]pyridin-2-ylmethanol (preparation given) and 1-(3-furyl)-3-cyano-6-naphthol (preparation given) were stirred with Ph3P and di-tert-Bu azodicarboxylate in THF to give (1S,5S)-1-(3-furyl)-3-cyano-6-[6-[3-(7,7-dimethyl-3a-hydroxy-6,8-dioxabicyclo[3.2.1]octyl)]pyridin-2-ylmethoxy]naphthalene (II). The 7,7-di-Me substitution in II led to increased recovery from microsomal incubations.

IT **107-13-1**, Acrylonitrile, reactions **109-72-8**, Butyllithium, reactions **626-05-1**, 2,6-Dibromopyridine **917-54-4**, Methyllithium **33674-96-3 37669-64-0**, 5-Bromopyridin-3-ylmethanol **118289-16-0 131747-45-0**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of 6,8-dioxabicyclo[3.2.1]octanes as inhibitors of leukotriene biosynthesis)

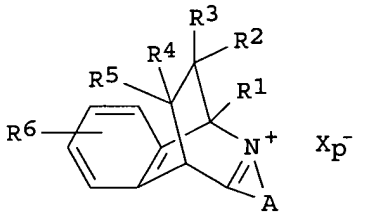
IT **153607-76-2P 153607-77-3P 153607-78-4P 153607-79-5P 153635-21-3P 155447-06-6P 155447-07-7P 155447-10-2P 155819-70-8P 155933-92-9P 155933-93-0P 156151-84-7P 172403-18-8P 172403-23-5P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation of 6,8-dioxabicyclo[3.2.1]octanes as inhibitors of leukotriene biosynthesis)

L143 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:881408 HCAPLUS
DN 123:286025
TI Preparation of annelated 5,10-ethanoisoquinolinium salts as neuroprotectants

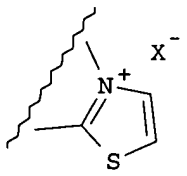
IN Dority, John A., Jr.; Earley, William G.; Kumar, Virendra; Mallamo, John P.; Miller, Matthew S.; Subramanyam, Chakrapani
PA Sterling Winthrop Inc., USA
SO Can. Pat. Appl., 132 pp.
CODEN: CPXXEB
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2131967	AA	19950315	CA 1994-2131967	19940913 <--
	US 5569655	A	19961029	US 1994-283319	19940729 <--
PRAI	US 1993-121389	A	19930914 <--		
	US 1994-283319	A	19940729 <--		

OS MARPAT 123:286025
GI



I



II

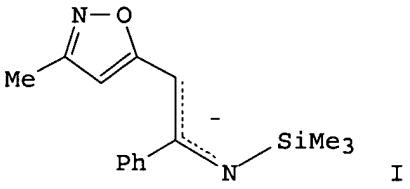
AB Title compds. [I; A = atoms to complete an (un)substituted aromatic ring; R1 = H or alkyl; R2,R3 = H or alkyl; R2R3 = atoms to complete a carbocyclic ring, alkylidene; R4,R5 = alkynyl, alkoxy, Ph, heteroaryl, etc.; R6 = H, alkyl, Oh, halo, alkoxy, etc.; X- = anion; p = 1; p = 0 when R6 contains a neg. charge] were prepared Thus, 2-bromothiazole was converted in 3 steps to 3-benzyl-2-(1,3-dioxolan-2-yl)thiazolium bromide which was treated successively with HBr and NaClO4 to give thiazolo[3,2-b]isoquinolinium perchlorate. The latter was cyclocondensed with R4R5C:CH2 (R4 = R5 = 3-furyl)(preparation given) to give, in 2 addnl. steps, title compound (+)-II (R1-R3,R6 = H, R4 = R5 = 3-furyl, X = Cl, p = 1) which gave 78% inhibition of cerebral infarct and penumbra region in artery-occluded rats at 0.1mg/kg/min. i.v.

IT **78-82-0**, Isobutyronitrile **591-51-5**, Phenyllithium **626-05-1**, 2,6-Dibromopyridine **626-55-1**, 3-Bromopyridine **19524-06-2**, 4-Bromopyridine hydrochloride
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of annelated 5,10-ethanoisoquinolinium salts as neuroprotectants)

IT **1120-87-2P**, 4-Bromopyridine **1135-32-6P** **6918-15-6P**, Di(4-pyridyl) ketone **24950-44-5P** **35779-35-2P**, Di(3-pyridyl) ketone **42772-87-2P** **169377-33-7P** **169377-34-8P** **169377-35-9P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation of annelated 5,10-ethanoisoquinolinium salts as neuroprotectants)

L143 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:571837 HCAPLUS
DN 113:171837
TI One-pot synthesis of perfluoroalkylated 4-fluoropyridines via N-silyl-1-azaallyl anion
AU Konakahara, Takeo; Satoh, Mitsunobu; Haruyama, Tomonori; Sato, Kenji
CS Fac. Sci. Technol., Sci. Univ. Tokyo, Noda, 278, Japan

SO Nippon Kagaku Kaishi (1990), (5), 466-71
CODEN: NKAKB8; ISSN: 0369-4577
DT Journal
LA Japanese
OS CASREACT 113:171837
GI



I

AB An N-silyl-1-azaallyl anion I, generated from an α-silyl carbanion (II) of 3-methyl-5-(trimethylsilylmethyl)isoxazole and benzonitrile, reacted with an excess amount of perfluoro(2-methyl-2-pentene) in the presence of various kinds of tertiary amines in THF to give 4-fluoro-5-(3-methyl-5-isoxazolyl)-2-(pentafluoroethyl)-6-phenyl-3-(trifluoromethyl)pyridine. Under the reaction conditions determined as optimum, the corresponding pyridines were prepared from the anion II and p-substituted benzonitriles. The reaction was extremely accelerated by the trimethylsilyl group of the anions. However, an analogous reaction of the anion derived from 2-(trimethylsilylmethyl)pyridine did not give the 4-fluoropyridine derivative, but gave the corresponding 4-pyridone in poor yield (22%).

IT **125378-17-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and hydrolysis of)

IT **1620-53-7P 115687-41-7P 129760-64-1P 129760-65-2P 129760-66-3P 129760-67-4P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of)

IT **115687-40-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with perfluoro(methylpentene))

IT **100-47-0**, Benzonitrile, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with silyl carbanion from methyl(trimethylsilylmethyl)isoxazole)

IT **129760-68-5**, 5-Lithio-3-methylisoxazole
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(sequential reaction of, with benzonitrile and perfluoro(methylpentene))

IT **129760-62-9 129760-63-0**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(sequential reaction of, with benzonitriles and perfluoro(methylpentene))

L143 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:573987 HCAPLUS
DN 111:173987
TI Heterocyclic alkenamides and derivatives, particularly (pyridinylalkyl)alkenamides, useful as antagonists of platelet activating factor, and their preparation, compositions, and use
IN Guthrie, Robert William; Kierstead, Richard Wightman; Mullin, John Guilfoyle, Jr.; Tilley, Jefferson Wright
PA Hoffmann-La Roche, F., und Co. A.-G., Switz.

SO Eur. Pat. Appl., 72 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 298466	A2	19890111	EP 1988-110814	19880706 <--
	EP 298466	A3	19901024		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	ZA 8804859	A	19890426	ZA 1988-4859	19880706 <--
	IL 87019	A1	19930708	IL 1988-87019	19880706 <--
	DK 8803780	A	19890111	DK 1988-3780	19880707 <--
	AU 8818825	A1	19890112	AU 1988-18825	19880707 <--
	AU 611460	B2	19910613		
	FI 8803289	A	19890111	FI 1988-3289	19880708 <--
	NO 8803082	A	19890111	NO 1988-3082	19880708 <--
	HU 47909	A2	19890428	HU 1988-3583	19880708 <--
	HU 203873	B	19911028		
	JP 01085963	A2	19890330	JP 1988-171719	19880710 <--
PRAI	US 1987-72199	A	19870710 <--		
	US 1988-179616	A	19880411 <--		

OS MARPAT 111:173987
AB Title compds. R1R2C:CR3(CH2)tCYY1NR4(CR5R6)mAR [I; Y = Y' = H, or YY' = O, S; A = p-C6H4, (CH2)n(X)s(CH2)r; X = O, S, CH:CH; n, r = 1; t = 0-10; R1, R2 = alkyl, alkenyl, aryl; or 1 of R1 and R2 = H and other = aryl group Q; W = CX3:CX4, CH2CH2, CH2, O, S, NX5; X1 = alkyl, (un)substituted Ph; X2-X4 = H, alkyl, alkoxy, halo; X5 = alkyl; R3 = H, alkyl, aryl; R4 = H, alkyl, aralkyl, aryl, acyl; R5 = H, alkyl; R6 = H, alkyl, cycloalkyl, aryl, heterocyclylalkyl; R = (un)substituted 6-membered heteroaryl with 1-2 N atoms] are prepared as antagonists of platelet activating factor (PAF). 6-Methoxytetralone was converted in 5 steps to (E)-3-(1-butyl-6-methoxy-2-naphthalenyl)-2-propenoic acid (II) Me ester. Saponification by NaOH in aqueous MeOH gave II, which was reesterified using DCC and 4-nitrophenol to give II 4-nitrophenyl ester. Direct amidation of the latter with (R)-α-methyl-3-pyridinebutanamine in THF gave N-(pyridylbutyl)naphthylpropenamide III. At 1 mg/kg i.v. in anesthetized guinea pigs, III gave 95% inhibition of PAF-induced bronchoconstriction. An aerosol solution contained III 1.0, EtOH 30.0, ascorbic acid 0.5, Freon 12 54.8, and Freon 114 13.7 weight %.

IT **90874-88-7P**, 5-(3-Pyridinyl)-2-pentanone **111848-81-8P**
111848-82-9P 119981-03-2P 119981-04-3P
119981-06-5P 119981-08-7P 119981-09-8P
119981-10-1P 119981-11-2P 119981-12-3P
119981-13-4P 119981-14-5P 119981-16-7P
119981-17-8P 119981-18-9P 119981-19-0P
120001-17-4P 120053-76-1P 120552-91-2P
120555-54-6P 120555-89-7P 121482-71-1P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reaction of, in preparation of platelet activating factor antagonists)

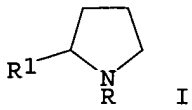
IT **121457-49-6P 121457-50-9P 121457-51-0P**
121457-52-1P 121457-53-2P 121457-54-3P
121457-55-4P 121457-56-5P 121457-57-6P
121457-58-7P 121457-59-8P 121457-60-1P
121457-61-2P 121457-62-3P 121457-63-4P
121457-64-5P 121457-65-6P 121457-66-7P
121457-67-8P 121457-68-9P 121457-69-0P
121457-70-3P 121457-71-4P 121457-72-5P
121457-73-6P 121457-74-7P 121457-75-8P
121457-76-9P 121457-77-0P 121457-79-2P

RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of, as antagonist of platelet activating factor)
IT **75-05-8**, Acetonitrile, reactions **109-72-8**, n-Butyllithium, reactions **500-22-1**, 3-Pyridinecarboxaldehyde **626-55-1**, 3-Bromopyridine **6021-23-4**, 3-Pyridinebutanamine **88940-38-9**, 3-Pyridinehexanamine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, in preparation of platelet activating factor antagonists)

L143 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:167247 HCAPLUS
DN 108:167247
TI Synthesis and adrenergic activity of erythro- and threo-2-(α-hydroxyarylmethyl)piperidines
AU Delgado, A.; Mauleon, D.; Rosell, G.; Salas, Maria L.; Najar, J.
CS Fac. Farm., Univ. Barcelona, Barcelona, Spain
SO Anales de Quimica, Serie C: Quimica Organica y Bioquimica (**1987**), 83(1), 90-5
CODEN: AQSBD6; ISSN: 0211-1357
DT Journal
LA Spanish
OS CASREACT 108:167247
AB The synthesis and adrenergic activity of erythro- and threo-2-(α-hydroxyarylmethyl)piperidines (I and II, resp.) as cyclic analogs of adrenergic drugs is described. The synthesis was carried out through condensation of 1-naphthonitrile or 2,5-dimethoxybenzonitrile with 2-lithiopyridine to give aryl pyridyl ketones, isolated as their hydrochlorides, which were catalytically hydrogenated over PtO2 to give, in each case, a 85:15 diastereomeric mixture of I and II whose separation was achieved by silica gel chromatog. of their N-acetyl derivs. Treatment of these derivative mixts. with SOCl2 followed by alkaline hydrolysis gave the minor isomer II. I and II showed β-blocking activity and their β1 potency was higher than β2 activity.
IT **109-04-6**, 2-Bromopyridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(lithiation and reaction of, with aromatic nitriles)
IT **64306-56-5P 107341-55-9P 113631-11-1P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reactions of)
IT **113631-24-6P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of)
IT **17624-36-1**, 2-Lithiopyridine
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with aromatic nitriles)
IT **86-53-3**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with lithiopyridine)

L143 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1985:166561 HCAPLUS
DN 102:166561
TI Derivatives of 1,3-benzodioxoles, 53. Preparation of N-alkyl-2-arylpyrrolidines
AU Dallacker, Franz; Jouck, Walter
CS Abt. Chem. Med., Tech. Hochsch. Aachen, Aachen, D-5100, Fed. Rep. Ger.
SO Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie (**1984**), 39B(11), 1598-606
CODEN: ZNBAD2; ISSN: 0340-5087
DT Journal
LA German

OS CASREACT 102:166561
GI



I

AB The N-alkyl-2-aryl-pyrrolidines I (R = Me, Et, Pr, CHMe2, Bu; R1 = benzodioxol-5-yl, pyrido[2,3-d][1,3]dioxol-6-yl, pyrido[2,3-b][1,4]dioxen-7-yl) were synthesized from R1CHO via R1COCH2CH2CN and 2-arylpyrrolines. In some cases, the recovery was high. The conversion of R1MgBr or R1Li with lactim ethers did not prove successful.

IT **76470-56-9**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(lithiation and reaction of, with cyclopentanone or cyclohexenones)

IT **95849-31-3P 95849-32-4P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and hydrolysis of)

IT **95897-49-7P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and lithiation of)

IT **95849-29-9P 95849-30-2P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reaction of, with acrylonitrile)

IT **95897-50-0P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and reaction of, with cyclopentanone or cyclohexenones)

IT **95849-26-6P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reaction of, with morpholine and cyanide)

IT **95849-36-8P 95849-37-9P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reduction of)

IT **95849-33-5P 95849-34-6P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and reductive cyclization of)

IT **95849-25-5P 95849-27-7P 95849-28-8P**
95849-39-1P 95849-40-4P 95849-42-6P
95849-43-7P 95849-45-9P 95849-46-0P
95849-56-2P 95849-57-3P 95849-58-4P
95897-51-1P 95897-52-2P
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of)

IT **107-13-1**, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with benzodioxolyl- and benzodioxenylmorpholinoacetonitriles)

IT **34206-49-0**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with dibromoethane)

IT **76470-45-6**
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with morpholine and cyanide)

L143 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1973:418528 HCAPLUS
DN 79:18528
TI Cleavage of the α-aminotetrahydropyran ring by organometallic compounds
AU Brocard, J.
CS Lab. Chim. Org. I, Univ. Sci. Tech. Lille, Villeneuve-d'Ascq, Fr.
SO Annales de Chimie (Paris, France) (**1972**), 7(6), 387-97
CODEN: ANCPAC; ISSN: 0151-9107
DT Journal
LA French
OS CASREACT 79:18528
GI For diagram(s), see printed CA Issue.
AB The tetrahydropyrans I (R = NHR1, R1 = Me, Et, Pr, CHMe2, Bu, n-C5H11, allyl) underwent ring-cleavage with R2Li (R2 = Et, Pr, Bu, Ph) to give 79-94% HO(CH2)4CHEtNHR1, which underwent Mannich reaction, cyanoethylation, and cyclization to piperidines. Reformatskii reaction of I (R = NMe2, NEt2, NPr2, NBu2, N(C5H11)2, NBuEt, piperidino) with BrCMe2CO2Et gave HO(CH2)4CHRCMe2CO2Et (III) or with Et 1-bromocyclohexane-1-carboxylate (IV) gave II, which on LiAlH4 reduction gave HO(CH2)4CHRCMe2CH2OH or cyclohexylmethanols, resp. With R2Li the esters III and IV yielded HO(CH2)4CHRCMe2CR22OH or the corresponding cyclohexylalkanols, both of which could be cyclized to piperidines.
IT **20092-97-1P 33387-57-4P**
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(preparation of)
IT **591-51-5 811-49-4 2417-93-8**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with aminotetrahydropyran)
IT **109-04-6**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(reaction of, with bromoisobutyrate)
IT **107-13-1**, reactions
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(with aminoheptanol)
IT **109-72-8**, reactions
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(with aminotetrahydropyran)

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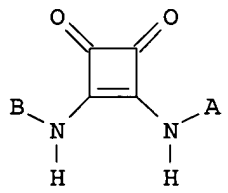
L144 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:451668 HCAPLUS
DN 141:23213
TI Preparation of 3,4-di-substituted cyclobutene-1,2-diones as CXC-chemokine receptor ligands
IN Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping; Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin, John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Biju, Purakkattle J.; Nelson, Kingsley H.; Rokosz, Laura L.
PA Schering Corporation, USA
SO U.S. Pat. Appl. Publ., 331 pp., Cont.-in-part of U.S. Ser. No. 208,412.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004106794	A1	20040603	US 2002-241326	20020911 <--
US 2004097547	A1	20040520	US 2002-208412	20020730 <--

WO 2004011418 A1 20040205 WO 2003-US23785 20030730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2004147559 A1 20040729 US 2003-630258 20030730 <--
PRAI US 2001-284026P P 20010416 <--
US 2002-122841 A2 20020415
US 2002-208412 A2 20020730
US 2002-241326 A 20020911
OS MARPAT 141:23213
GI



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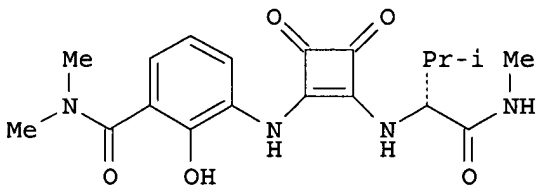


II

AB Title compds. I [A = (un)substituted heterocycle, heterocyclylalkyl, heteroaryl, heteroarylalkyl, cycloalkyl, etc.; B = (un)substituted aryl, heteroaryl, heterocycle, heteroarylarene, etc.], or a pharmaceutically acceptable salt or solvate thereof, are prepared and disclosed as cxc-chemokine receptor ligands. Thus, II was prepared by substitution of (dimethylaminocarbonylhydroxyphenylamino)(ethoxy)cyclobutenedione [preparation given] with (R)-2-amino-N,3-dimethylbutanamide monohydrochloride [preparation given]. Compds. of the invention demonstrated an IC50 value of < 20 μM in CXCR1 SPA assay and < 5 μM in CXCR2 SPA assay. I are useful for the treatment of chemokine-mediated diseases such as acute and chronic inflammatory disorders and cancer.

IT **473724-65-1P 473724-67-3P 473724-70-8P**
473724-78-6P 473725-17-6P 473725-18-7P
473725-19-8P 473728-57-3P 473729-15-6P
473729-53-2P 473729-75-8P 473730-04-0P
473730-05-1P 473730-06-2P 473730-60-8P
473730-63-1P 473730-69-7P 473730-73-3P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(drug candidate; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT **78-82-0 98-98-6**, 2-Pyridinecarboxylic acid

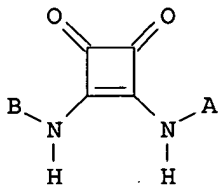
594-19-4 1120-87-2 1888-75-1 2402-95-1
2786-07-4 3002-94-6 3731-53-1,
4-Pyridinemethanamine **14305-17-0 20173-04-0**
34803-66-2 50392-78-4 60289-68-1
147701-78-8 473735-05-6 473735-15-8
473735-17-0 473735-20-5 473735-28-3
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT **1008-91-9P 39639-98-0P 63980-43-8P**
337956-36-2P 389628-28-8P 473731-17-8P
473731-58-7P 473731-59-8P 473731-60-1P
473731-75-8P 473733-59-4P 473733-91-4P
473733-92-5P 473733-97-0P 473733-98-1P
473733-99-2P 473734-00-8P 473734-01-9P
473734-25-7P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

L144 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:414638 HCAPLUS
DN 140:406571
TI Preparation of 3,4-di-substituted cyclobutene-1,2-diones as CXC-chemokine receptor ligands
IN Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping; Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin, John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Nelson, Kingsley H.; Rokosz, Laura L.
PA USA
SO U.S. Pat. Appl. Publ., 308 pp., Cont.-in-part of U.S. Ser. No. 122,841.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2004097547	A1	20040520	US 2002-208412	20020730	<--
	US 2004106794	A1	20040603	US 2002-241326	20020911	<--
	WO 2004011418	A1	20040205	WO 2003-US23785	20030730	
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	US 2004147559	A1	20040729	US 2003-630258	20030730	<--
PRAI	US 2001-284026P	P	20010416	<--		
	US 2002-122841	A2	20020415			
	US 2002-208412	A2	20020730			
	US 2002-241326	A	20020911			

OS MARPAT 140:406571
GI



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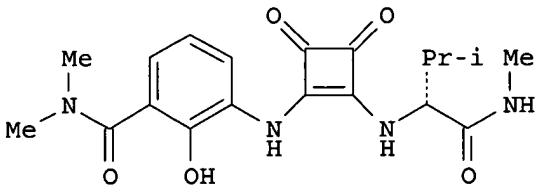

II

AB Title compds. I [A = (un)substituted heterocycle, heterocyclealkyl, heteroaryl, heteroarylalkyl, cycloalkyl, etc.; B = (un)substituted aryl, heteroaryl, heterocycle, heteroarylarene, etc.], or a pharmaceutically acceptable salt or solvate thereof, are prepared and disclosed as cxc-chemokine receptor ligands. Thus, II was prepared by substitution of (dimethylaminocarbonylhydroxyphenylamino)(ethoxy)cyclobutenedione [preparation given] with (R)-2-amino-N,3-dimethylbutanamide monohydrochloride [preparation given]. Compds. of the invention demonstrated an IC50 value of < 20 μM in CXCR1 SPA assay and < 5 μM in CXCR2 SPA assay. I are useful for the treatment of chemokine-mediated diseases such as acute and chronic inflammatory disorders and cancer.

IT **473724-65-1P 473724-67-3P 473724-70-8P**
473724-78-6P 473725-17-6P 473725-18-7P
473725-19-8P 473728-57-3P 473729-15-6P
473729-53-2P 473729-75-8P 473730-04-0P
473730-05-1P 473730-06-2P 473730-60-8P
473730-63-1P 473730-69-7P 473730-73-3P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(drug candidate; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT **78-82-0 98-98-6**, 2-Pyridinecarboxylic acid
594-19-4 1120-87-2 1888-75-1 2402-95-1
2786-07-4 3002-94-6 3731-53-1,
4-Pyridinemethanamine **14305-17-0 20173-04-0**
34803-66-2 50392-78-4 60289-68-1
147701-78-8 473735-05-6 473735-15-8
473735-17-0 473735-20-5 473735-28-3
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT **1008-91-9P 39639-98-0P 63980-43-8P**
337956-36-2P 389628-28-8P 473731-17-8P
473731-58-7P 473731-59-8P 473731-60-1P
473731-75-8P 473733-59-4P 473733-91-4P
473733-92-5P 473733-97-0P 473733-98-1P
473733-99-2P 473734-00-8P 473734-01-9P
473734-25-7P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

L144 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:77799 HCAPLUS
DN 138:122460
TI Process for preparing unsymmetrical biaryls and alkylated aromatic compounds from aryl nitriles and Grignard reagents or organozinc compounds in the presence of nickel or palladium catalysts.
IN Miller, Joseph A.
PA DSM N.V., Neth.; Koninklijke DSM N.V.
SO Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1279656	A2	20030129	EP 2002-102055	20020725 <--
	EP 1279656	A3	20041006		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	US 2003100760	A1	20030529	US 2002-202483	20020723 <--
PRAI	US 2001-308003P	P	20010725 <--		

OS CASREACT 138:122460; MARPAT 138:122460
AB Ar1R [Ar1 = (substituted) aryl; R = (substituted) aryl, alkyl, alkenyl], were prepared by reaction of Ar1CN with RxM (R as defined above; M = Mg, Zn optionally bearing addnl. ligands; x = 1-3) in the presence of Ni or Pd catalysts having P ligands. Thus, PhMgBr was heated 1 h in a solution of LiCOMe3 in THF at 60°; the solution was cooled and 4-MeOC6H4CN and (PPh3)2NiCl2 were added followed by heating at 60° for 2 h to give 91% 4-phenylanisole.
IT **939-23-1P**, 4-Phenylpyridine **1008-88-4P**, 3-Phenylpyridine **1008-89-5P**, 2-Phenylpyridine **4467-06-5P**, 2-(4-Methylphenyl)pyridine
RL: **IMF (Industrial manufacture)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of biaryls and alkylarom. compds. from aryl nitriles and Grignard reagents or organozinc compds. in the presence of nickel or palladium catalysts)
IT **100-47-0**, Benzonitrile, reactions **100-48-1**, 4-Cyanopyridine **100-54-9**, 3-Cyanopyridine **100-70-9**, 2-Cyanopyridine **109-04-6**, 2-Bromopyridine **591-51-5**, Phenyllithium
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of biaryls and alkylarom. compds. from aryl nitriles and Grignard reagents or organozinc compds. in the presence of nickel or palladium catalysts)
IT **1907-33-1 2388-07-0**, **Lithium** ethoxide **2973-86-6**, **Lithium** thiophenoxide **42031-71-0**
RL: **RGT (Reagent)**; **RACT (Reactant or reagent)**
(preparation of biaryls and alkylarom. compds. from aryl nitriles and Grignard reagents or organozinc compds. in the presence of nickel or palladium catalysts)

L144 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:4850 HCAPLUS
DN 138:73075
TI Process for the preparation of substituted aromatics via lithiation and electrophilic alkylation of haloaromatics
IN Meudt, Andreas; Erbes, Michael; Forstinger, Klaus
PA Clariant G.m.b.H., Germany
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent

LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1270535	A2	20030102	EP 2002-12763	20020608 <--
	EP 1270535	A3	20040218		
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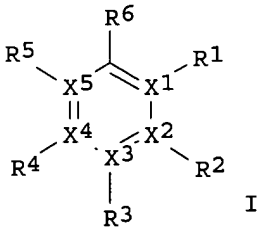
	DE 10155209	A1	20030109	DE 2001-10155209	20011109 <--
	US 2003018192	A1	20030123	US 2002-171444	20020613 <--
	US 6657093	B2	20031202		
	JP 2003073308	A2	20030312	JP 2002-180218	20020620 <--
	US 2004073032	A1	20040415	US 2003-677412	20031002 <--
PRAI	DE 2001-10129765	A	20010620 <--		
	DE 2001-10155209	A	20011109 <--		
	US 2002-171444	A3	20020613		

OS CASREACT 138:73075; MARPAT 138:73075
GI



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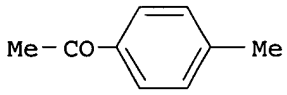

II

AB A process for the preparation of compds. I [R1 - R5 = H, (un)substituted alkyl, alkoxy, etc.; R6 = aryl, alkyl] via the lithiation and electrophilic alkylation of haloaroms. I [R1 - R5 = H, (un)substituted alkyl, alkoxy, etc.; R6 = Cl, F] is disclosed. For example, a mixture of p-chlorotoluene (1 mol) and acetonitrile (1.1 mol) was added to a suspension of **lithium** (2.0 mol) in THF (350 mL) at -50°C. After stirring for 7.5 h, the reaction was quenched with water, the pH adjusted to 2.0 and the mixture heated at reflux for 2 h. The reaction was cooled, extracted with petroleum ether and the combined organic layers were distilled to provide acetophenone II in 99% yield. The preparation of approx. 12-specific examples of compds. I are disclosed.

IT **75-21-8**, Oxirane, reactions **626-60-8**, 3-Chloropyridine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(process for the preparation of substituted aroms. via lithiation and electrophilic alkylation of the corresponding haloaroms)

IT **75-05-8**, Acetonitrile, reactions **7439-93-2**, **Lithium**, reactions
RL: **RGT (Reagent); RACT (Reactant or reagent)**
(process for the preparation of substituted aroms. via lithiation and electrophilic alkylation of the corresponding haloaroms)

IT **350-03-8P**, 3-Acetylpyridine
RL: **IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)**
(product; process for the preparation of substituted aroms. via lithiation and electrophilic alkylation of the corresponding haloaroms)

L144 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:814089 HCAPLUS
DN 137:325178
TI Preparation of 3,4-di-substituted cyclobutene-1,2-diones as cxc-chemokine receptor ligands
IN Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping;

Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin, John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Nelson, Kingsley H.; Rokosz, Laura L.
PA Schering Corporation, USA; Pharmacopeia, Inc.
SO PCT Int. Appl., 394 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002083624	A1	20021024	WO 2002-US12681	20020415 <--
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EP 1381590	A1	20040121	EP 2002-739172	20020415 <--
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JP 2004532846	T2	20041028	JP 2002-581381	20020415 <--
NO 2003004612	A	20031208	NO 2003-4612	20031015 <--
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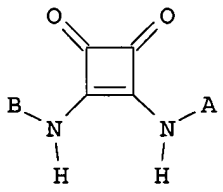
WO 2002-US12681	W	20020415		

OS MARPAT 137:325178
GI



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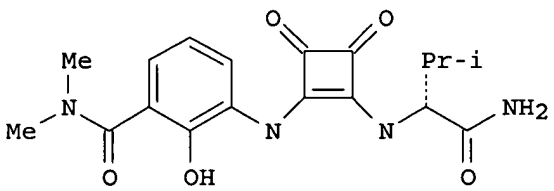

II

AB Title compds. I [A = (un)substituted heterocycle, heterocyclealkyl, heteroaryl, heteroarylalkyl, cycloalkyl, etc.; B = (un)substituted aryl, heteroaryl, heterocycle, heteroarylarene, etc.], or a pharmaceutically acceptable salt or solvate thereof, are prepared and disclosed as cxc-chemokine receptor ligands. Thus, II was prepared by substitution of (dimethylaminocarbonylhydroxyphenylamino)(ethoxy)cyclobutenedione [preparation given] with (R)-2-amino-N,3-dimethylbutanamide monohydrochloride [preparation given]. Compds. of the invention demonstrated an IC50 value of < 20 μM

in CXCR1 SPA assay and < 5 μM in CXCR2 SPA assay. I are useful for the treatment of chemokine-mediated diseases such as acute and chronic inflammatory disorders and cancer.

IT **473724-65-1P 473724-67-3P 473724-70-8P**
473724-78-6P 473725-17-6P 473725-18-7P
473725-19-8P 473728-57-3P 473729-15-6P
473729-53-2P 473729-75-8P 473730-04-0P
473730-05-1P 473730-06-2P 473730-60-8P
473730-63-1P 473730-69-7P 473730-73-3P
RL: PAC (Pharmacological activity); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)** ; USES (Uses)
(drug candidate; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT **78-82-0 98-98-6**, 2-Pyridinecarboxylic acid
594-19-4 1120-87-2 1888-75-1 2402-95-1
2786-07-4 3002-94-6 3731-53-1,
4-Pyridinemethanamine **14305-17-0 20173-04-0**
34803-66-2 50392-78-4 60289-68-1
147701-78-8 473735-05-6 473735-15-8
473735-17-0 473735-20-5 473735-28-3
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT **1008-91-9P 39639-98-0P 63980-43-8P**
337956-36-2P 389628-28-8P 473731-17-8P
473731-58-7P 473731-59-8P 473731-60-1P
473731-75-8P 473733-59-4P 473733-91-4P
473733-92-5P 473733-97-0P 473733-98-1P
473733-99-2P 473734-00-8P 473734-01-9P
473734-25-7P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
American Home Prod	1995			WO 9514005 A	HCAPLUS
American Home Prod	1996			WO 9614300 A	HCAPLUS
American Home Prod	1996			WO 9615103 A	HCAPLUS
American Home Prod	1998			WO 9833763 A	HCAPLUS
American Home Prod	2000			WO 0035855 A	HCAPLUS
Anon	1994	018	C-1222	PATENT ABSTRACTS OF	
Butera, J	2000	43	1187	JOURNAL OF MEDICINAL	HCAPLUS
Palovich, M	2001			WO 0164208 A	HCAPLUS
Sumitomo Metal Ind Ltd	1994			JP 06092915 A	HCAPLUS

L144 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:161523 HCAPLUS
DN 132:209505
TI Bleaching fabrics by atmospheric oxygen in the presence of transition metal complex catalysts
IN Appel, Adrianus Cornelis Maria; Carina, Riccardo Filippo; Delroisse, Michel Gilbert Jose; Feringa, Bernard Lucas; Girerd, Jean-jacques; Hage, Ronald; Kalmeijer, Robertus Everardus; Martens, Constantinus Franciscus; Peelen, Jacobus Carolina Johannes; Que, Lawrence; Swarthoff, Ton; Tetard, David; Thornthwaite, David; Tiwari, Laxmikant; Thijssen, Rob; Twisker, Robin Stefan; Veerman, Simon Marinus; Van Der Voet, Gerrit; Smith, Richard George
PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Limited
SO PCT Int. Appl., 86 pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000012808	A1	20000309	WO 1999-GB2878	19990901 <--
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	BR 9913367	A	20020129	BR 1999-13367	19990901 <--
	EP 1433840	A1	20040630	EP 2004-7615	19990901 <--
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	RU 2240391	C2	20041120	RU 2001-108575	19990901 <--
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	WO 2000060043	A1	20001012	WO 2000-EP2587	20000322 <--
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EP 1208188 A1 20020529 EP 2000-962335 20000816 <--
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US 6302921 B1 20011016 US 2000-649668 20000829 <--
US 6451752 B1 20020917 US 2000-650139 20000829 <--
ZA 2001001671 A 20020228 ZA 2001-1671 20010228 <--
ZA 2001001672 A 20020228 ZA 2001-1672 20010228 <--
ZA 2002000933 A 20030203 ZA 2002-933 20020201 <--
ZA 2002000934 A 20030203 ZA 2002-934 20020201 <--
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OS MARPAT 132:209505

AB Fabrics such as laundered fabrics are bleached by atmospheric O by treatment with transition metal complexes, that are applied in the dry form or in aqueous solns. (such as in laundering) or in nonaq. solns. (such in dry cleaning). The method can confer cleaning benefits to the textile after the treatment. A typical complex was manufactured by reaction of 2-pyridyl ketone oxime 1 h in EtOH-NH4OH containing NH4OAc with Zn at reflux, reaction of the resulting bis(pyridin-2-yl)methylamine 40 h with picolyl chloride hydrochloride in aqueous NaOH, reduction of the perchlorate salt of the 2nd intermediate with LiAlH4, lithiation of the 3rd intermediate with BuLi, methylation of 4th intermediate with MeI, and complexation of the resulting ligand with Fe(ClO4)2.6H2O.

IT **136768-57-5D**, manganese complex
RL: CAT (Catalyst use); USES (Uses)
(compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **260395-33-3P 260395-35-5P 260395-37-7P**
RL: CAT (Catalyst use); **IMF (Industrial manufacture)**; **PREP (Preparation)**; USES (Uses)
(compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **768-61-6P**, 2-Hydroxymethyl-5-ethyl pyridine **772-71-4P**, 2-Acetoxymethyl-5-methylpyridine **3099-28-3P**,

2,6-Dichloromethylpyridine. **5371-70-0P**, 4-Chloro-2,6-pyridinedicarboxylic acid dimethyl ester **21852-60-8P**, 2-Acetoxymethyl-5-ethyl pyridine **22940-71-2P**, 2-Hydroxymethyl-5-methylpyridine **52814-41-2P**, 2-Acetoxymethyl-3-methylpyridine. **58088-50-9P** **63071-09-0P**, 2-Hydroxymethyl-3-methyl pyridine **89561-22-8P** **260395-23-1P**
RL: **IMF (Industrial manufacture)**; **RCT (Reactant)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(ligand precursor; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **104-90-5**, 5-Ethyl-2-methyl pyridine **109-72-8**, Butyllithium, reactions **583-61-9**, 2,3-Dimethylpyridine **589-93-5**, 2,5-Lutidine **1195-59-1**, 2,6-Pyridinedimethanol **1562-95-4**, 2-Pyridyl ketone oxime **4377-33-7**, 2-Chloro-methylpyridine **6959-47-3**, Picolylchloride hydrochloride
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(ligand precursor; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **80384-94-7P** **223504-10-7P** **260395-25-3P** **260395-26-4P** **260395-27-5P** **260395-28-6P** **260395-29-7P** **260395-30-0P** **260395-31-1P**
RL: **IMF (Industrial manufacture)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(ligand; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **75-05-8**, Acetonitrile, reactions **136768-57-5** **172300-86-6**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(ligand; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

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Procter & Gamble	1995			WO 9527772 A	HCAPLUS
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Unilever Nv	1996			WO 9606154 A	HCAPLUS

L144 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:161417 HCAPLUS
DN 132:209503
TI Composition and method for bleaching a substrate such as laundered fabrics with atmospheric oxygen
IN Appel, Adrianus Cornelis Maria; Carina', Riccardo Filippo; Delroisse, Michel Gilbert Jose; Feringa, Bernard Lucas; Girerd, Jean-jacques; Hage, Ronald; Kalmeijer, Robertus Everardus; Martens, Constantinus Franciscus; Peelen, Jacobus Carolina Johannes; Que, Lawrence; Swarthoff, Ton; Tetard, David; Thornthwaite, David; Tiwari, Laxmikant; Thijssen, Rob; Twisker, Robin Stefan; Veerman, Simon Marinus; Van Der Voet, Gerrit
PA Unilever Plc, UK; Unilever Nv; Hindustan Lever Limited
SO PCT Int. Appl., 83 pp.
CODEN: PIXXD2
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LA English
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OS MARPAT 132:209503

AB A method of bleaching a substrate such as laundered fabrics is provided that comprises applying to the substrate, in an aqueous medium, an transition metal complex, so that the complex catalyzes bleaching of the substrate by atmospheric oxygen. A typical complex was manufactured by reaction of 2-pyridyl ketone oxime 1 h in EtOH-NH4OH containing NH4OAc with Zn at reflux, reaction of the resulting bis(pyridin-2-yl)methylamine 40 h with picolyl chloride hydrochloride in aqueous NaOH, reduction of the perchlorate salt of the 2nd intermediate with LiAlH4, lithiation of the 3rd intermediate with BuLi, methylation of 4th intermediate with MeI, and complexation of the resulting ligand with Fe(ClO4)2.6H2O.

IT **260395-33-3P 260395-35-5P 260395-37-7P**
RL: CAT (Catalyst use); **IMF (Industrial manufacture)**; **PREP (Preparation)**; USES (Uses)
(compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **768-61-6P**, 2-Hydroxymethyl-5-ethyl pyridine **772-71-4P** **3099-28-3P**, 2,6-Dichloromethylpyridine. **5371-70-0P**, 4-Chloro-2,6-pyridinedicarboxylic acid dimethyl ester **21852-60-8P**, 2-Acetoxymethyl-5-ethyl pyridine **22940-71-2P** **52814-41-2P 58088-50-9P 63071-09-0P**, 2-Hydroxymethyl-3-methyl pyridine **89561-22-8P** **260395-23-1P**
RL: **IMF (Industrial manufacture)**; **RCT (Reactant)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(ligand precursor; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **104-90-5**, 5-Ethyl-2-methyl pyridine **109-72-8**, Butyllithium, reactions **583-61-9**, 2,3-Dimethylpyridine **589-93-5**, 2,5-Lutidine **1195-59-1**, 2,6-Pyridinedimethanol **1562-95-4**, 2-Pyridyl ketone oxime **4377-33-7**, 2-Chloro-methylpyridine **6959-47-3**, Picolylchloride hydrochloride
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(ligand precursor; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **80384-94-7P 223504-10-7P 260395-25-3P** **260395-26-4P 260395-27-5P 260395-28-6P** **260395-29-7P 260395-30-0P 260395-31-1P**
RL: **IMF (Industrial manufacture)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(ligand; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

IT **75-05-8**, Acetonitrile, reactions **136768-57-5** **172300-86-6**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(ligand; compns. containing transition metal complex catalysts for bleaching laundered fabrics with atmospheric oxygen)

RETABLE

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L144 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:197515 HCAPLUS
DN 131:4838
TI TMP-zincate as highly chemoselective base for directed ortho metalation
AU Kondo, Yoshinori; Shilai, Manabu; Uchiyama, Masanobu; Sakamoto, Takao
CS Graduate School of Pharmaceutical Sciences, Tohoku University, Sendai, 980-8578, Japan
SO Journal of the American Chemical Society (**1999**), 121(14), 3539-3540
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 131:4838
AB TMP-zincate [I; **lithium** di-tert-butyl(2,2,6,6-tetramethylpiperidino)zincate] was prepared as a chemoselective base for directed ortho metalation reactions. Thus, PhX [X = CO2Me, CO2Et, CO2CHMe2, CO2CMe3, CON(CHMe2)2, cyano] were treated with I and the resulting ortho metalated derivs. underwent electrophilic substitution with iodine to give 2-IC6H4X in excellent yields. Thiophenes, furans, pyridines, and quinolines underwent analogous regioselective metalations with I.
IT **100-47-0**, Benzonitrile, reactions **1120-90-7**, 3-Iodopyridine **38227-87-1**, **Lithium** 2,2,6,6-tetramethylpiperidide
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of **lithium** di-tert-butyl(tetramethylpiperidino)zincate as reagent in chemoselective ortho metalation/electrophilic substitution of aromatic hydrocarbons and heterocyclic compds.)
IT **225942-46-1P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation of **lithium** di-tert-butyl(tetramethylpiperidino)zincate as reagent in chemoselective ortho metalation/electrophilic substitution of aromatic hydrocarbons and heterocyclic compds.)
IT **5029-67-4P**, 2-Iodopyridine **6560-83-4P**, 2-Iodoquinoline **19658-77-6P**, 1-Iodoisoquinoline **225797-25-1P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of **lithium** di-tert-butyl(tetramethylpiperidino)zincate as reagent in chemoselective ortho metalation/electrophilic substitution of aromatic hydrocarbons and heterocyclic compds.)
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Harada, T	1993	58	4897	J Org Chem	HCAPLUS
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Kjonaas, R	1988	53	4133	J Org Chem	HCAPLUS
Knochel, P	1993	93	2117	Chem Rev	HCAPLUS
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Kondo, Y	1997		799	J Chem Soc Perkin Tr	HCAPLUS
Kondo, Y	1999	1	123	J Comb Chem	HCAPLUS
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Kondo, Y	1996		2331	j Chem Soc PErkin Tr	HCAPLUS
Krizan, T	1983	105	6155	J Am Chem Soc	HCAPLUS
Muller, H	1977	140	C17	J Organomet Chem	
Queguiner, G	1991	52	187	Adv Heterocycl Chem	HCAPLUS
Rennels, R	1998	120	421	J Am Chem Soc	HCAPLUS
Rewcastle, G	1993	56	155	Adv Heterocycl Chem	HCAPLUS
Saa, J	1992	114	9093	J Am Chem Sco	HCAPLUS
Saa, J	1996	61	5194	J Org Chem	HCAPLUS
Snieckus, V	1990	90	879	Chem Rev	HCAPLUS
Taylor, S	1991		570	J Chem Soc Chem Comm	
Tuckmantel, W	1986	119	1581	Chem Ber	HCAPLUS
Uchiyama, M	1996	118	8733	J Am Chem Soc	HCAPLUS
Uchiyama, M	1998	120	4934	J Am Chem Soc	HCAPLUS
Upton, C	1975	40	1094	J Org Chem	HCAPLUS
Vedejs, E	1996	118	1809	J Am Chem Soc	HCAPLUS
Vedejs, E	1996	61	5192	J Org Chem	HCAPLUS
Verbeek, J	1984	49	3857	J Org Chem	HCAPLUS
Verbeek, J	1984	49	3857	J Org Chem	HCAPLUS
Wittig, G	1940	73	1197	Chem Ber	

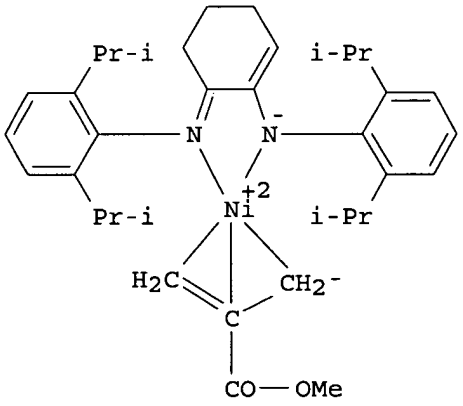
L144 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:493611 HCAPLUS
DN 129:149362
TI Polymerization of olefins in the presence of nickel complexes
IN Johnson, Lynda Kaye; Bennett, Alison Margaret Anne; Ittel, Steven Dale; Wang, Lin; Parthasarathy, Anju; Hauptman, Elisabeth; Simpson, Robert D.; Feldman, Jerald; Coughlin, Edward Bryan; et al.
PA E. I. Du Pont de Nemours & Co., USA; Johnson, Lynda Kaye; Bennett, Alison Margaret Anne; Ittel, Steven Dale; Wang, Lin; Parthasarathy, Anju; Hauptman, Elisabeth; Simpson, Robert D.
SO PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9830609	A1	19980716	WO 1998-US610	19980113 <--
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2274817	AA	19980716	CA 1998-2274817	19980113 <--
AU 9859150	A1	19980803	AU 1998-59150	19980113 <--
AU 734651	B2	20010621		
EP 952997	A1	19991103	EP 1998-902510	19980113 <--

	EP 952997	B1	20040811		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, FI				
	BR 9806894	A	20000321	BR 1998-6894	19980113 <--
	TR 9901645	T2	20000421	TR 1999-9901645	19980113 <--
	JP 2000514132	T2	20001024	JP 1998-531236	19980113 <--
	JP 3418992	B2	20030623		
	US 6174975	B1	20010116	US 1998-6536	19980113 <--
	AT 273329	E	20040815	AT 1998-902510	19980113 <--
	NO 9903295	A	19990901	NO 1999-3295	19990702 <--
	MX 9906534	A	20000228	MX 1999-6534	19990713 <--
	US 6613915	B1	20030902	US 1999-417323	19991013 <--
PRAI	US 1997-35190P	P	19970114 <--		
	US 1998-6536	A3	19980113 <--		
	WO 1998-US610	W	19980113 <--		

OS MARPAT 129:149362

GI



I

AB Selected olefins such as ethylene and α-olefins are polymerized by nickel[II] complexes of certain monoanionic ligands such as nickel-diimine complex I. The polyolefins are useful in many applications such as molding resins, film, fibers and others. I was manufactured by reaction of 2 equiv Na salt of the product of 1,2-cyclohexanedione and 2,6-diisopropylaniline with 1 equiv [(CH2C(CO2Me)CH2)Ni(μ-Br)]2.

IT **58086-72-9P 72366-42-8P 81292-75-3P,**
Lithium 5-methyl-2-thiophenecarboxylate **210882-23-8P**
210882-92-1P 210882-93-2P 210883-10-6P
210883-18-4P
RL: **IMF (Industrial manufacture); RCT (Reactant);**
PREP (Preparation); RACT (Reactant or reagent)
(catalyst precursor; polymerization of olefins in presence of nickel complexes
of monoanionic ligands as catalysts)

IT **75-05-8**, Acetonitrile, reactions **108-48-5**, 2,6-Lutidine
594-19-4, tert-Butyllithium **1603-40-3**,
2-Amino-3-picoline **19966-81-5**, **Lithium**
dicyclohexylphosphine
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(catalyst precursor; polymerization of olefins in presence of nickel complexes
of monoanionic ligands as catalysts)

IT **210883-30-0P 210883-32-2P 210883-45-7P**
210883-54-8P 210883-58-2P
RL: CAT (Catalyst use); **IMF (Industrial manufacture); PREP**

(Preparation); USES (Uses)
(polymerization of olefins in presence of nickel complexes of monoanionic ligands as catalysts)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Du Pont	1996			WO 9623010 A	HCAPLUS
Ecole Europ Des Hautes	1994			DE 4415725 A	HCAPLUS
Novak, B	1995			US 5395811 A	HCAPLUS

L144 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:433709 HCAPLUS
DN 122:161648
TI Preparation of Dipyridylmethane Ligands with Pseudo-C2 Symmetry. Grafting on Polystyrenes via Transformation to Phenolic Derivatives
AU Levacher, Vincent; Moberg, Christina
CS Department of Chemistry, Royal Institute of Technology, Stockholm, S-100 44, Swed.
SO Journal of Organic Chemistry (**1995**), 60(6), 1755-62
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
AB Efficient grafting of dipyridylmethane ligands on highly cross-linked and gel-type chloromethylated polystyrenes was achieved using phenolic derivs. of the ligands. In this way, chiral polymer-supported ligands with pseudo-C2 symmetry were obtained. The synthesis of the ligands and their grafting under mild conditions are described, and the preparation of monomeric models. During reduction of 6,6'-(2,2-dimethyl-1-oxopropyl) derivs. with sodium borohydride, the R,S isomers were unexpectedly formed with high selectivity.
IT **161584-90-3P 161584-91-4P**
RL: **PNU (Preparation, unclassified)**; **PUR (Purification or recovery)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(NMR spectra of tetraethers obtained by methylation of chiral pyridylmethane alcs. to identify possible stereoisomers)
IT **49669-22-9P**
RL: BYP (Byproduct); PREP (Preparation)
(coupling product; preparation of pyridylmethane phenolic ligands for grafting on polystyrene)
IT **161584-85-6P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(diastereomer; preparation of chiral pyridylmethane phenolic ligands for grafting on polystyrene)
IT **161584-86-7P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(homochiral bisalc.; preparation of chiral pyridylmethane phenolic ligands for grafting on polystyrene)
IT **161584-80-1P**
RL: **BYP (Byproduct)**; **PREP (Preparation)**
(identification by reaction of meso isomers obtained by stereoselective reduction of pyridylmethane diketone)
IT **161584-92-5P 161584-93-6P 161584-96-9P**
161584-97-0P
RL: **PUR (Purification or recovery)**; **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(identification by reaction of meso isomers obtained by stereoselective reduction of pyridylmethane diketone)
IT **161584-98-1P**

RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(identification by reaction of meso isomers obtained by stereoselective reduction of pyridylmethane diketone)

IT **161584-94-7P 161584-95-8P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(isomer; identification by reaction of meso isomers obtained by stereoselective reduction of pyridylmethane diketone)

IT **161584-75-4P**
RL: **BYP (Byproduct)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(minor product, intermediate; preparation of pyridylmethane phenolic ligands for grafting on polystyrene)

IT **161584-79-8P**
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(no absolute configuration, diastereomer; preparation of chiral pyridylmethane phenolic ligands containing t-Bu groups for grafting on polystyrene)

IT **161584-77-6P 161584-78-7P**
RL: BYP (Byproduct); PREP (Preparation)
(preparation of chiral pyridylmethane phenolic ligands containing t-Bu groups for grafting on polystyrene)

IT **109-72-8**, Butyllithium, reactions **630-18-2**, 2,2-Dimethylpropionitrile **37709-60-7 42772-87-2**, Bis(6-bromo-2-pyridyl)ketone **144382-06-9**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of chiral pyridylmethane phenolic ligands containing t-Bu groups for grafting on polystyrene)

IT **161584-87-8P 161584-88-9P 161584-89-0P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation of chiral pyridylmethane phenolic ligands containing t-Bu groups for grafting on polystyrene)

IT **161584-76-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chiral pyridylmethane phenolic ligands for grafting on polystyrene)

IT **161584-84-5P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of chiral pyridylmethane phenolic ligands for grafting on polystyrene)

IT **161584-83-4DP**, reaction products with divinylbenzene-styrene copolymer **161584-86-7DP**, reaction products with divinylbenzene-styrene copolymer **161584-98-1DP**, reaction products with divinylbenzene-styrene copolymer
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of polystyrene-supported chiral dipyridylmethane ligands by grafting for asym. synthesis and enantiosepns.)

IT **17624-36-1**, 2-Lithiopyridine **19437-26-4**, Di(2-pyridyl)ketone
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(preparation of pyridylmethane phenolic ligands for grafting on polystyrene)

IT **161584-74-3P 161584-81-2P 161584-82-3P 161584-83-4P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of pyridylmethane phenolic ligands for grafting on polystyrene)

L144 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:573738 HCAPLUS
Correction of: 1986:129612
DN 111:173738
Correction of: 104:129612
TI Aromatic alkenol, alkynol, or cyclopropylalkanol derivatives useful as antiandrogens
IN Hughes, Leslie Richard; Oldfield, John; Tucker, Howard
PA Imperial Chemical Industries PLC, UK
SO Eur. Pat. Appl., 61 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 154528	A2	19850911	EP 1985-301414	19850301 <--
	EP 154528	A3	19890104		
	EP 154528	B1	19911211		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	ZA 8501268	A	19851224	ZA 1985-1268	19850219 <--
	US 4873329	A	19891010	US 1985-704038	19850221 <--
	AT 70256	E	19911215	AT 1985-301414	19850301 <--
	IL 74486	A1	19910310	IL 1985-74486	19850303 <--
	AU 8539446	A1	19851010	AU 1985-39446	19850304 <--
	AU 566981	B2	19871105		
	FI 8500888	A	19850908	FI 1985-888	19850305 <--
	FI 86169	B	19920415		
	FI 86169	C	19920727		
	CA 1269104	A1	19900515	CA 1985-475778	19850305 <--
	NO 8500887	A	19850909	NO 1985-887	19850306 <--
	NO 164294	B	19900611		
	NO 164294	C	19900919		
	HU 38087	A2	19860428	HU 1985-842	19850306 <--
	HU 195755	B	19880728		
	DK 8501048	A	19850908	DK 1985-1048	19850307 <--
	JP 60237033	A2	19851125	JP 1985-43847	19850307 <--
	JP 07061965	B4	19950705		
	ES 541044	A1	19861116	ES 1985-541044	19850307 <--
	ES 555614	A1	19870701	ES 1986-555614	19860602 <--
	US 5032592	A	19910716	US 1989-358433	19890530 <--
PRAI	GB 1984-6000	A	19840307 <--		
	US 1985-704038	A1	19850221 <--		
	EP 1985-301414	A	19850301 <--		

AB Aromatic alkenol, alkynol, and cyclopropylalkanol derivs. R2R3R4ZCR5R7CR6R8CR9R10OR1 [Z = benzene, naphthalene, or heterocyclic nucleus; R1 = H, alkyl, alkanoyl, aroyl; R2-R4 = halo, NO2, cyano, CF3, alkylthio, -sulfinyl, -sulfonyl, alkoxy, dialkylamino; R5, R6 = H, halo, alkyl, R7R8 = bond, CH2; R5R6 = R7R8 = bond; R9 = alkyl, haloalkyl; R10 = cycloalkyl, alkanoyl, aroyl, (di)(alkyl)carbamoyl, (un)substituted alkyl, alkenyl, alkynyl, Ph, naphthyl, heterocyclyl], useful as antiandrogens (no data), were prepared Thus, 3,4-Cl2C6H3CHO and MeCOCF3 were condensed by LiOH in EtOH to give trans-3,4-Cl2C6H3CH:CHCOCF3, which reacted with BuLi and Me3SiC.tplbond.CH to give trans-3,4-Cl2C6H3CH:CHC(OH)(CF3)C.tplbond.CR11 (I; R11 = Me3Si), which was desilylated with Bu4N+F- to give I (R11 = H). Oxidation of the latter alkyne with HgO in aqueous H2SO4 gave trans-3,4-Cl2C6H3CH:CHC(OH)(CF3)COMe.

IT **90945-94-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation of, by epoxyphenylbutenes)

IT **23100-12-1 101066-61-9**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(condensation of, with methylphosphonium salt and fluoroalkenones)

IT **101048-68-4 101048-69-5 101048-70-8**

101048-71-9 101048-74-2
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(condensation of, with organolithiums)
IT **109-72-8**, reactions **917-54-4 3002-94-6**
3052-45-7
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(condensation of, with phenylbutenones)
IT **75-05-8**, Acetonitrile, reactions **78-82-0**
107-12-0, Propanenitrile **109-74-0**, Butanenitrile
36178-05-9
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(lithiation and condensation of, with phenylbutenones)
IT **101048-31-1P 101048-36-6P 101048-37-7P**
101048-38-8P 101048-39-9P 101048-41-3P
101048-42-4P 101048-44-6P 101048-45-7P
101065-46-7P 101066-14-2P 101066-33-5P
101066-34-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of, as antiandrogen)

L144 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1986:129612 HCAPLUS
DN 104:129612
TI Aromatic alkenol, alkynol, or cyclopropylalkanol derivatives
IN Hughes, Leslie Richard; Oldfield, John; Tucker, Howard
PA Imperial Chemical Industries PLC, UK
SO Eur. Pat. Appl., 61 pp.
CODEN: EPXXDW
DT Patent
LA English

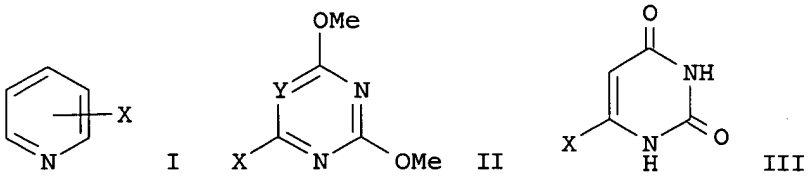
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 154528 A2		**19850911**	EP 1985-301414	19850301

R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE
PRAI GB 1984-6000 19840307
AB Aromatic alkenol, alkynol, and cyclopropylalkanol derivs. R2R3R4ZCR5R7CR6R8CR9R10OR1 [Z = benzene, naphthalene, or heterocyclic nucleus; R1 = H, alkyl, alkanoyl, aroyl; R2-R4 = halo, NO2, cyano, CF3, alkylthio, -sulfinyl, -sulfonyl, alkoxy, dialkylamino; R5, R6 = H, halo, alkyl, R7R8 = bond, CH2; R5R6 = R7R8 = bond; R9 = alkyl, haloalkyl; R10 = cycloalkyl, alkanoyl, aroyl, (di)(alkyl)carbamoyl, (un)substituted alkyl, alkenyl, alkynyl, Ph, naphthyl, heterocyclyl], useful as antiandrogens (no data), were prepared Thus, 3,4-Cl2C6H3CHO and MeCOCF3 were condensed by LiOH in EtOH to give trans-3,4-Cl2C6H3CH:CHCOCF3, which reacted with BuLi and Me3SiC.tplbond.CH to give trans-3,4-Cl2C6H3CH:CHC(OH)(CF3)C.tplbond.CR 11 (I; R11 = Me3Si), which was desilyalated with Bu4N+F- to give I (R11 = H). Oxidation of the latter alkyne with HgO in aqueous H2SO4 gave trans-3,4-Cl2C6H3CH:CHC(OH)(CF3)COMe.
IT **101048-68-4 101048-69-5 101048-70-8**
101048-71-9 101048-74-2
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(condensation of, with organolithiums)
IT **109-72-8**, reactions **917-54-4 3002-94-6**
3052-45-7
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(condensation of, with phenylbutenones)
IT **75-05-8**, reactions **78-82-0 107-12-0**
109-74-0 36178-05-9
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(lithiation and condensation of, with phenylbutenones)

IT **101048-31-1P 101048-36-6P 101048-37-7P**
101048-38-8P 101048-39-9P 101048-41-3P
101048-42-4P 101048-44-6P 101048-45-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of, as antiandrogen)

=> => d l146 bib abs hitrn retable tot

L146 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **2000:422008** HCAPLUS
DN **133:164039**
TI Naphthalene-catalyzed lithiation of chlorinated nitrogenated aromatic heterocycles and reaction with electrophiles
AU Gomez, Inmaculada; Alonso, Emma; Ramon, Diego J.; Yus, Miguel
CS Departamento de Quimica Organica, Facultad de Ciencias, Universidad de Alicante, Alicante, E-03080, Spain
SO Tetrahedron (**2000**), 56(24), 4043-4052
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 133:164039
GI



AB Naphthalene catalyzed reductive lithiation of various chloroazines, e.g., pyridine I (X = 2-, 3-, 4-Cl), in the presence of different electrophiles yields, after hydrolysis, the expected functionalized heterocycles with one and three nitrogen atoms in the ring, e.g., II (X = PhCO, Me3CCHOH, Me2COH, etc., Y = CH, N). This methodol. allowed us to trap in situ the **lithium** imine derived from the reaction of 2-pyridyllithium with benzonitrile, by reaction with a Grignard reagent in the presence of titanium alkoxides. 2,4-Dimethoxypyrimidines II [X = Me3CCHOH, Et2COH, Me2CHC(OH)Me] are demethylated under acidic conditions to give the corresponding uracil derivs. III.
IT **100-47-0**, Benzonitrile, reactions **109-09-1**
612-62-4 626-60-8 626-61-9 634-47-9
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(naphthalene-catalyzed electrophilic substitution of chlorinated aromatic nitrogen-heterocycles)
IT **91-02-1P 4390-52-7P 5424-19-1P**
6270-47-9P 14159-57-0P 16576-25-3P
18085-85-3P 19490-92-7P 19490-93-8P
19490-94-9P 19731-60-3P 20609-11-4P
22518-71-4P 40247-47-0P 54813-46-6P
55690-09-0P 60975-82-8P 104338-80-9P
108981-31-3P 124009-64-9P 198270-44-9P
202134-87-0P 287969-71-5P 287969-72-6P
287969-74-8P 287969-75-9P 287969-76-0P
287969-90-8P

RL: **SPN (Synthetic preparation); PREP (Preparation)**
(naphthalene-catalyzed electrophilic substitution of chlorinated aromatic nitrogen-heterocycles)

RETABLE

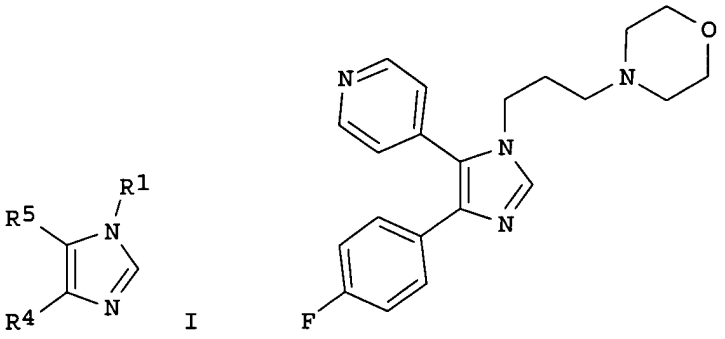
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Alonso, E	1997	62	417	J Org Chem	HCAPLUS
Alonso, E	1999	55	11027	Tetrahedron	HCAPLUS
Alonso, F	1997	1	397	Recent Res Devel Org	HCAPLUS
Anon	1965				
Anon	1975		512		HCAPLUS
Anon	1989		288		HCAPLUS
Bachman, G	1959	24	1696	J Org Chem	HCAPLUS
Berillon, L	1998		1359	Synlett	HCAPLUS
Blomberg, C	1993			The Barbier Reaction	
Bolm, C	1992	125	1169	Chem Ber	HCAPLUS
Cahiez, G	1999	40	6407	Tetrahedron Lett	HCAPLUS
Charette, A	1998	39	5147	Tetrahedron Lett	HCAPLUS
Chelucci, G	1992	3	1235	Tetrahedron:Asymmetr	HCAPLUS
Corey, E	1998	39	6151	Tetrahedron Lett	HCAPLUS
Cussac, M	1974	9	651	Eur J Med Chem-Chim	HCAPLUS
Effenberger, F	1992	125	1131	Chem Ber	HCAPLUS
Eicher, T	1995			The Chemistry of Het	
Epsztajn, J	1985		213	J Chem Soc, Perkin T	HCAPLUS
Fontana, F	1991	56	2866	J Org Chem	HCAPLUS
Foubelo, F	1999	40	743	Tetrahedron Lett	HCAPLUS
Foubelo, F	1998	7	1	Trends Org Chem	HCAPLUS
Genov, M	1997	8	1869	Tetrahedron:Asymmetr	HCAPLUS
Gijarro, D	1993	49	7761	Tetrahedron	
Gomez, C	1999	55	7017	Tetrahedron	HCAPLUS
Gomez, C	1998	39	1397	Tetrahedron Lett	HCAPLUS
Griffin, D				EP 296722	HCAPLUS
Gros, P	1997		3597	J Chem Soc, Perkin T	HCAPLUS
Gu, Y	1996	37	2565	Tetrahedron Lett	HCAPLUS
Hannon, M	1998	39	8509	Tetrahedron Lett	HCAPLUS
Hildbrand, S	1997	119	5499	J Am Chem Soc	HCAPLUS
Hirschberg, A	1995	2	209	J Heterocyclic Chem	
Keay, J	1991	8	579	Comprehensive Organi	
Kondo, Y	1994	37	1467	Heterocycles	HCAPLUS
Krumkalns, E	1977		159	US 4039675	HCAPLUS
McWhinnie, W	1968	11	499	J Organometal Chem	HCAPLUS
Mongin, F	1998	39	1749	Tetrahedron Lett	HCAPLUS
Moore, E	1992	114	5888	J Am Chem Soc	HCAPLUS
Najera, C	1997	1	67	Recent Res Devel Org	HCAPLUS
Najera, C	1991	1	155	Trends Org Chem	
Ortiz, J	1999	55	4831	Tetrahedron	HCAPLUS
Peterson, M	1997	62	8237	J Org Chem	HCAPLUS
Ple, N	1995	60	3781	J Org Chem	HCAPLUS
Pollet, P	1999	64	4512	J Org Chem	HCAPLUS
Pozharskii, A	1997			Heterocycles in Life	
Queguiner, G	1991	52	186	Adv Heterocyclic Che	
Ramon, D	2000		225	Eur J Org Chem	HCAPLUS
Ramon, D	1997	8	2479	Tetrahedron:Asymmetr	HCAPLUS
Riedmiller, F	1998	17	4444	Organometallics	HCAPLUS
Sakamoto, T	1992	33	5373	Tetrahedron Lett	HCAPLUS
Savage, S	1998	63	10148	J Org Chem	
Shiruma, A	1999		495	Synthesis	
Sperber, N	1949	71	887	J Am Chem Soc	HCAPLUS
Stoner, E	1995	51	11043	Tetrahedron	HCAPLUS
Traynelis, V	1974	96	7289	J Am Chem Soc	HCAPLUS
Trecourt, F	2000	56	1349	Tetrahedron	HCAPLUS
Trecourt, F	1999	40	4339	Tetrahedron Lett	HCAPLUS

Trecourt, F	1999	40	4339	Tetrahedron Lett	HCAPLUS
Uenishi, J	1999	50	341	Heterocycles	HCAPLUS
van der Schaaf, P	1994	13	1433	Organometallics	HCAPLUS
Verbeek, J	1984	49	3857	J Org Chem	HCAPLUS
Verbeek, J	1998	54	8771	Tetrahedron	
Wakefield, B	1988		31	Organolithium Method	
Wibaut, J	1951	70	1054	Recl Trav Chim Pays-	HCAPLUS
Wishka, D	1998	63	7851	J Org Chem	HCAPLUS
Wolf, A	1956	78	861	J Am Chem Soc	HCAPLUS
Yus, M	1996		155	Chem Soc Rev	HCAPLUS
Yus, M	1991		398	J Chem Soc, Chem Com	HCAPLUS
Yus, M	1997	17	73	Rev Heteroatom Chem	HCAPLUS
Zymalkowski, F	1968	715	98	Justus Liebigs Ann C	HCAPLUS

L146 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1997:636196** HCAPLUS
DN **127:307383**
TI Pyridyl imidazole compounds, useful as cytokine inhibitors, and their compositions
IN Adams, Jerry Leroy; Garigipati, Ravi Shanker; Boehm, Jeffrey Charles
PA Smithkline Beecham Corporation, USA
SO U.S., 39 pp., Cont.-in-part of U.S. Ser. No. 369,964.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5670527	A	19970923	US 1995-473058	19950607 <--
	EP 1227091	A2	20020731	EP 2002-76580	19940715 <--
	EP 1227091	A3	20020807		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI				
	EP 1227092	A2	20020731	EP 2002-76582	19940715 <--
	EP 1227092	A3	20020807		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI				
	EP 1229035	A1	20020807	EP 2002-76581	19940715 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI				
	EP 1291346	A1	20030312	EP 2002-79534	19940715 <--
	EP 1291346	B1	20050323		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI				
	ZA 9600094	A	19960724	ZA 1996-94	19960108 <--
	US 5969184	A	19991019	US 1997-854223	19970509 <--
	US 6150557	A	20001121	US 1998-185059	19981103 <--
	AU 9944782	A1	19991111	AU 1999-44782	19990827 <--
	JP 2004083600	A2	20040318	JP 2003-412020	20031210 <--
	JP 2004099622	A2	20040402	JP 2003-412029	20031210 <--
	JP 2004149541	A2	20040527	JP 2003-412024	20031210 <--
PRAI	US 1993-92733	B2	19930716 <--		
	US 1995-369964	B2	19950109 <--		
	EP 1994-923503	A3	19940715 <--		
	JP 1995-504744	A3	19940715 <--		
	WO 1994-US7969	A2	19940715 <--		
	US 1995-473058	A3	19950607 <--		
	US 1997-854223	A3	19970509 <--		
	AU 1998-71850	A3	19980602 <--		

OS MARPAT 127:307383
GI



I II

AB Novel 1,4,5-substituted imidazole compds. I [R1 = (un)substituted alk(en/yn)yl, cycloalkyl, aralkyl, heteroaryl, wide variety of functionalized sidechains; R4 = (un)substituted Ph, naphthyl, or heteroaryl; R5 = (un)substituted 4-pyridyl, pyrimidinyl, quinolyl, isoquinolinyl, quinazolin-4-yl, 1-imidazolyl, or 1-benzimidazolyl], and their compns. for use in therapy as cytokine inhibitors, are disclosed. Approx. 100 invention compds. and a variety of intermediates were prepared For instance, (4-fluorophenyl)(p-tolylthio)methyl isocyanide and pyridine-4-carboxaldehyde [3-(4-morpholinyl)propyl]imine (prepns. given) were cyclocondensed in the presence of 1,5,7-triazabicyclo[4.4.0]dec-5-ene to give 51% title compound II. The latter compound was active in a radiocompetitive, cytokine-specific binding protein assay (no data).

IT **31183-76-3P**, Pyridine-4-carboxaldehdye [2-(methylthio)phenyl]imine **42182-68-3P**, N-(4-Pyridinylmethyl)-N-methylformamide **56752-29-5P**, Pyridine-4-carboxaldehyde (2-propenyl)imine **63875-01-4P**, 4-Formyl-2-methylpyridine **80863-24-7P**, Pyridine-4-carboxaldehyde tert-butylimine **93138-82-0P**, Pyridine-4-carboxaldehyde (2,2-diethoxyethyl)imine **165806-86-0P**, Pyridine-4-carboxaldehyde [4-Morpholinylprop-3-yl]imine **165806-87-1P**, Pyridine-4-carboxaldehyde (3-Chloropropyl)imine **165806-88-2P**, Pyridine-4-carboxaldehyde [2-(4-morpholinyl)ethyl]imine **165806-91-7P**, Pyridine-4-carboxaldehyde [3-(N-methyl-N-benzylamino)propyl]imine **165806-92-8P**, Pyridine-4-carboxaldehdye [4-(methylthio)phenyl]imine **165806-93-9P**, Pyridine-4-carboxaldehdye [3-(methylthio)phenyl]imine **165806-96-2P**, Pyridine-4-carboxaldehyde [4-(4-morpholinyl)butyl]imine **165806-97-3P**, Pyridine-4-carboxaldehyde cyclopropylimine **165806-98-4P**, Pyridine-4-carboxaldehyde isopropylimine **165806-99-5P**, Pyridine-4-carboxaldehyde (cyclopropylmethyl)imine **165807-00-1P**, 2-Chloropyridine-4-carboxaldehyde [3-(4-morpholinyl)propyl]imine **165807-01-2P**, 4-(4-Fluorophenyl)-1-[3-(4-morpholinyl)propyl]-5-(2-hydrazinyl-4-pyridinyl)imidazole **165807-03-4P**, Pyridine-4-carboxaldehyde [2-(methoxycarbonyl)ethyl]imine **165807-04-5P**, Pyridine-4-carboxaldehyde (1-benzylpiperidin-4-yl)imine **165807-14-7P**, Quinoline-4-carboxaldehyde [3-(4-morpholinyl)propyl]imine **165807-16-9P**, 2-Methylpyridine-4-carboxaldehyde (cyclopropylmethyl)imine **187217-89-6P**, Pyridine-4-carboxaldehyde [3-(methoxycarbonyl)propyl]imine **197446-73-4P**, 2-Methylpyridine-4-carboxaldehyde [3-(4-morpholinyl)propyl]imine
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(intermediate; preparation of pyridylimidazoles and analogs as cytokine inhibitors)

IT **152122-36-6P**, 1-Methyl-4-phenyl-5-(4-pyridyl)imidazole **162581-10-4P**, 4-(4-Fluorophenyl)-2-(4-hydroxyphenyl-3,5-t2)-5-(4-pyridyl)imidazole **165806-09-7P**, 1-[3-(4-Morpholinyl)propyl]-4-(4-

fluorophenyl)-5-(4-pyridyl)imidazole **165806-10-0P**, 1-(3-Chloropropyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-11-1P**, 1-(3-Azidopropyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-12-2P**, 1-(3-Aminopropyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-13-3P**, 1-(3-Methanesulfonamidopropyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-14-4P**, 1-[3-[N-(Phenylmethyl)amino]propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-15-5P**, 1-[3-[N-(Phenylmethyl)-N-methylamino]propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-16-6P**, 1-[3-(1-Pyrrolidinyl)propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-17-7P**, 1-[3-(Diethylamino)propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-18-8P**, 1-[3-(1-Piperidinyl)propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-19-9P**, 1-[3-(Methylthio)propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-20-2P**, 1-[2-(4-Morpholinyl)ethyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-21-3P**, 1-[3-(4-Morpholinyl)propyl]-4-[3-(methylthio)phenyl]-5-(4-pyridyl)imidazole **165806-22-4P**, 1-[3-(4-Morpholinyl)propyl]-4-[3-(methylsulfinyl)phenyl]-5-(4-pyridyl)imidazole **165806-23-5P**, 1-[3-(N-Methyl-N-benzylamino)propyl]-4-[3-(methylthio)phenyl]-5-(4-pyridyl)imidazole **165806-24-6P**, 1-[3-(N-Methyl-N-benzylamino)propyl]-4-[3-(methylsulfinyl)phenyl]-5-(4-pyridyl)imidazole **165806-25-7P**, 1-[4-(Methylthio)phenyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-26-8P**, 1-[4-(Methylsulfinyl)phenyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-27-9P**, 1-[3-(Methylthio)phenyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-28-0P**, 1-[3-(Methylsulfinyl)phenyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-29-1P**, 1-[2-(Methylthio)phenyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-30-4P**, 1-[2-(Methylsulfinyl)phenyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-32-6P**, 1-Cyclopropyl-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-33-7P**, 1-Isopropyl-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-34-8P**, 1-(Cyclopropylmethyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-35-9P**, 1-tert-Butyl-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-36-0P**, 1-(2,2-Diethoxyethyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-37-1P**, 1-(Formylmethyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-38-2P**, 1-[(Hydroxyiminyl)methyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-39-3P**, 1-(Cyanomethyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-40-6P**, 1-[3-(4-Morpholinyl)propyl)-4-(4-fluorophenyl)-5-(2-methylpyrid-4-yl)imidazole **165806-41-7P**, 4-(4-Fluorophenyl)-1-[3-(4-morpholinyl)propyl]-5-(2-chloropyridin-4-yl)imidazole **165806-42-8P**, 4-(4-Fluorophenyl)-1-[3-(4-morpholinyl)propyl]-5-(2-amino-4-pyridinyl)imidazole **165806-43-9P**, 1-[3-(Methoxycarbonyl)propyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-44-0P**, 1-(3-Carboxypropyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-46-2P**, 1-(2-Carboxyethyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-47-3P**, 1-(1-Benzylpiperidin-4-yl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **165806-54-2P**, 1-Methyl-4-(3-chlorophenyl)-5-(4-pyridinyl)imidazole **165806-55-3P**, 1-Methyl-4-[3-(methylthio)phenyl]-5-(4-pyridyl)imidazole **165806-56-4P**, 1-Methyl-4-[3-(methylsulfinyl)phenyl]-5-(4-pyridyl)imidazole **165806-57-5P**, 4-(4-Fluorophenyl)-1-[3-(methylsulfinyl)propyl]-5-(4-pyridinyl)imidazole **165806-58-6P**, 4-(4-Fluorophenyl)-1-[3-(methylsulfonyl)propyl]-5-(4-pyridinyl)imidazole **165806-59-7P**, 1-(3-Phenoxypropyl)-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-60-0P**, 1-[3-(Phenylthio)propyl]-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-61-1P**, 1-[3-(4-Morpholinyl)propyl]-4-(4-fluorophenyl)-5-(4-quinolyl)imidazole **165806-62-2P**, 1-[3-(Phenylsulfinyl)propyl]-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-63-3P**, 1-(3-Ethoxypropyl)-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole

165806-64-4P, 1-[3-(Phenylsulfonyl)propyl]-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-65-5P**, 1-[3-(4-Morpholinyl)propyl]-4-(3-chlorophenyl)-5-(4-pyridyl)imidazole **165806-66-6P**, 1-[3-(4-Morpholinyl)propyl]-4-(3,4-dichlorophenyl)-5-(4-pyridyl)imidazole **165806-70-2P**, (E)-1-(1-Propenyl)-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-71-3P**, 1-(2-Propenyl)-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-73-5P**, 1-[3-(4-Morpholinyl)propyl]-5-(4-pyridinyl)-4-[4-(trifluoromethyl)phenyl]imidazole **165806-74-6P**, 1-[3-(4-Morpholinyl)propyl]-5-(4-pyridinyl)-4-[3-(trifluoromethyl)phenyl]imidazole **165806-75-7P**, 1-(Cyclopropylmethyl)-4-(3,4-dichlorophenyl)-5-(4-pyridinyl)imidazole **165806-76-8P**, 1-(Cyclopropylmethyl)-4-[3-(trifluoromethyl)phenyl]-5-(4-pyridinyl)imidazole **165806-77-9P**, 1-(Cyclopropylmethyl)-4-(4-fluorophenyl)-5-(2-methylpyrid-4-yl)imidazole **165806-78-0P**, 1-[3-(4-Morpholinyl)propyl]-5-(4-pyridinyl)-4-[3,5-bis(trifluoromethyl)phenyl]imidazole **165806-80-4P**, 1-(1-Formyl-4-piperidinyl)-4-(4-fluorophenyl)-5-(4-pyridinyl)imidazole **165806-83-7P**, 4-(4-Fluorophenyl)-5-(4-pyridyl)-1-(2-acetoxyethyl)imidazole **180869-32-3P**, 5-(4-Pyridyl)-4-(4-fluorophenyl)-1-(4-piperidinyl)imidazole **180869-33-4P**, 5-(4-Pyridyl)-4-(4-fluorophenyl)-1-[1-(tert-butoxycarbonyl)-4-piperidinyl]imidazole **181630-74-0P**, 1-[4-(4-Morpholinyl)butyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **187217-97-6P**, 5-(2-Amino-4-pyrimidinyl)-4-(4-fluorophenyl)-1-(2-carboxy-2,2-dimethylethyl)imidazole **lithium** salt **197446-72-3P**, 1-[2-(Ethoxycarbonyl)ethyl]-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of pyridylimidazoles and analogs as cytokine inhibitors)

IT **100-47-0**, Benzonitrile, reactions **872-85-5**, Pyridine-4-carboxaldehyde **1822-51-1**, 4-Picolyl chloride hydrochloride **2214-53-1**, 4-Cyano-2-methylpyridine **4363-93-3**, Quinoline-4-carboxaldehyde **101066-61-9**, 2-Chloropyridine-4-carboxaldehyde **152121-39-6**, 2-(3,5-Dibromo-4-hydroxyphenyl)-4-(4-fluorophenyl)-5-(4-pyridyl)imidazole **181630-93-3**, 4-(4-Fluorophenyl)-5-(4-pyridyl)imidazole
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(starting material; preparation of pyridylimidazoles and analogs as cytokine inhibitors)

L146 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1996:457795** HCAPLUS
DN **125:119500**
TI Conjugated n-fluoropyridinium salt polymers and use thereof
IN Umemoto, Teruo; Adachi, Kenji; Tomizawa, Ginjiro; Ishihara, Sumi; Nagayoshi, Masayuki
PA Daikin Industries, Ltd., Japan
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9612702	A1	19960502	WO 1995-JP2172	19951020	<--
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
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	CA 2203384	C	20010109			
	EP 787719	A1	19970806	EP 1995-934869	19951020	<--

	EP 787719	B1	20010816		
	R: CH, DE, FR, GB, IT, LI				
	CN 1161691	A	19971008	CN 1995-195801	19951020 <--
	CN 1083435	B	20020424		
	EP 1006135	A1	20000607	EP 2000-102627	19951020 <--
	EP 1006135	B1	20030212		
	R: CH, DE, FR, GB, IT, LI				
	RU 2194721	C2	20021220	RU 1997-108071	19951020 <--
	US 5736274	A	19980407	US 1997-817794	19970418 <--
	CN 1277193	A	20001220	CN 2000-103861	20000310 <--
PRAI	JP 1994-282491	A	19941022 <--		
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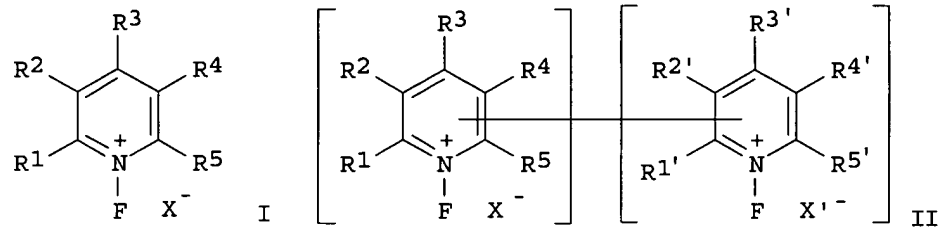
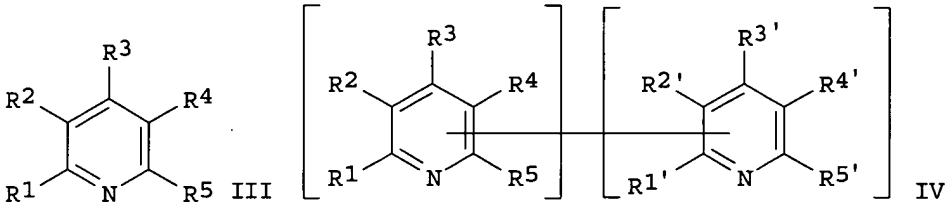




AB The polymers have repeating units I (neighboring R1 and R2, R2 and R3, R3 and R4, and R4 and R5 may join together to form -CR6:CR7-cR8:CR9-, 2 of the R1-9 are single bonds, the remaining are H, halogen, alkyl, haloalkyl, aryl, alkoxy, aryloxy, alkoxycarbonyl, aryloxy carbonyl, cyano, nitro, or amino group, X- is a conjugated base of a Bronsted acid) or II (neighboring R1 and R2, R2 and R3, R3 and R4, and R4 and R5 may join together to form -CR6:CR7-cR8:CR9-; neighboring R1' and R2', R2' and R3', R3' and R4', and R4' and R5' may join together to form -CR6':CR7'-cR8':CR9'-; 1 of the R1-9 and 1 of R1'-9' are single bonds; the remaining are H, halogen, alkyl, haloalkyl, aryl, alkoxy, aryloxy, alkoxycarbonyl, aryloxy carbonyl, cyano, nitro, or amino group; X- and X'- are conjugated bases of Bronsted acids). Preferably, the polymers have number average mol. weight ≤500,000. The polymers are prepared by using I or II prepared by reacting III or IV with F in the presence of an acid and/or a salt in a mixed solvent contg C2-5 aliphatic nitrile and C1-5 aliphatic carboxylic acid. The polymers are useful as cathode active mass and/or electrolytes for batteries and as fluorination agents.

IT **14283-07-9**, **Lithium** fluoroborate
RL: MOA (Modifier or additive use); USES (Uses)
(additives in cathodes from conjugated n-fluoropyridinium salt polymers for batteries)

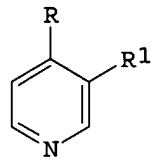
IT **178439-26-4P 178439-28-6P 179108-15-7P**
179108-16-8P 179108-17-9P 179108-18-0P
179108-20-4P 179108-22-6P 179108-24-8P

179108-26-0P 179108-28-2P 179108-30-6P
RL: DEV (Device component use); **SPN (Synthetic preparation)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(manufacture of conjugated N-fluoropyridinium salt polymers for batteries and fluorinating agents)

IT **75-05-8**, Acetonitrile, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(solvents in manufacture of conjugated n-fluoropyridinium salt polymers for batteries and fluorinating agents)

IT **366-18-7**, 2,2'-Bipyridyl **553-26-4**, 4,4'-Bipyridyl **581-47-5**, 2,4'-Bipyridyl **1134-35-6**, 4,4'-Dimethyl-2,2'-bipyridyl **1148-79-4**, 2,2':6',2''-Terpyridine **1762-41-0**, 4,4'-Dichloro-2,2'-bipyridyl **6153-92-0 71071-46-0 142946-80-3**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(starting substance in manufacture of conjugated n-fluoropyridinium salt polymers for batteries and fluorinating agents)

L146 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1988:570193** HCAPLUS
DN **109:170193**
TI Directed lithiation of 4-halopyridines: chemoselectivity, regioselectivity and application to synthesis
AU Marsais, F.; Trecourt, F.; Breant, P.; Queguiner, G.
CS Lab. Chim. Org. Fine Heterocycl., IRCOF, Mont Saint Aignan, Fr.
SO Journal of Heterocyclic Chemistry (**1988**), 25(1), 81-7
CODEN: JHTCAD; ISSN: 0022-152X
DT Journal
LA English
OS CASREACT 109:170193
GI



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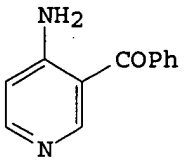

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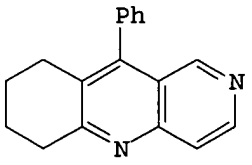
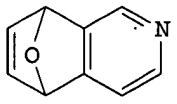


III


IV

AB The title pyridines I (R = Cl, F, R1 = H) were ortho-lithiated with BuLi-N,N,N',N'-tetramethylethylenediamine or LiN(CHMe2)2 and treated with electrophiles, e.g. MeI, Me3SiCl, and PhCHO, to give 3,4-disubstituted pyridines I [R = Cl, F, R1 = Me, Me3Si, Ph(OH)CH], resp. Oxidation of I [R = F, R1 = Ph(HO)CH] with MnO2 followed by ammonolysis with NH3-EtOH gave ketone II. Annulation of II with cyclohexanone gave 1,6-naphthyridine III. Lithiation of I (R = F, R1 = H) at low temperature followed by warming gave 3,4-pyridyne which was trapped by cycloaddn. with furan to give adduct IV.

IT **116922-60-2**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(bromine-**lithium** exchange and reaction of, with pentanone)

IT **116922-68-0P**

RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and chlorination of)

IT **82257-15-6P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and condensation reaction of, with malonic acid)

IT **116922-74-8P 116922-78-2P 116922-79-3P**
RL: **RCT (Reactant)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **RACT (Reactant or reagent)**
(preparation and cyclization of, by pyridinium chloride)

IT **3810-12-6P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and cyclocondensation reaction of, with cyclohexanone, naphthyridine derivative from)

IT **109574-95-0P 116922-65-7P 116922-69-1P**
116922-70-4P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and oxidation of, by manganese dioxide)

IT **116922-83-9P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and substitution reaction of, with imidazoles)

IT **116922-72-6P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation and substitution reactions of, with ammonia and methylamine)

IT **1681-36-3P 40273-51-6P 40273-57-2P**
40273-60-7P 77332-85-5P 90006-87-4P
116922-61-3P 116922-62-4P 116922-63-5P
116922-64-6P 116922-66-8P 116922-67-9P
116922-71-5P 116922-73-7P 116922-75-9P
116922-76-0P 116922-77-1P 116922-81-7P
116922-82-8P 116922-84-0P 116922-85-1P
116946-42-0P
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(preparation of)

IT **13534-98-0P**, 4-Amino-3-bromopyridine
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation, diazotization, and fluorination of)

IT **109575-05-5P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation, hydroxylation, and methoxylation of)

IT **114077-82-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, hydroxylation, methoxylation, or cyclocondensation reaction of, with Et acetoacetate and ammonia)

IT **626-61-9P**, 4-Chloropyridine **694-52-0P**, 4-Fluoropyridine
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation, regioselective lithiation, and reactions of, with electrophiles)

IT **75-21-8**, Ethylene oxide, reactions
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(reaction of, with lithiated chloropyridine)

IT **1678-49-5**
RL: **RCT (Reactant)**; **RACT (Reactant or reagent)**
(substitution reaction of, with ammonia)

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=> d his

     (FILE 'HOME' ENTERED AT 13:18:42 ON 21 APR 2005)
               SET COST OFF

     FILE 'CASREACT' ENTERED AT 13:18:53 ON 21 APR 2005
               ACT ZINNA677/A
              ---------
L1             STR
L2          5208 SEA FILE=CASREACT SSS FUL L1 ( 62854 REACTIONS)
              ---------
               ACT ZINNA677A/A
              ---------
L3             STR
L4             STR
L5   (      5208)SEA FILE=CASREACT SSS FUL L3 ( 62854 REACTIONS)
L6          2389 SEA FILE=CASREACT SUB=L5 SSS FUL L4 ( 24843 REACTIONS)
              ---------

     FILE 'REGISTRY' ENTERED AT 13:19:44 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:19:51 ON 21 APR 2005
               SET SMARTSELECT ON
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:19:52 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:19:58 ON 21 APR 2005
               SET SMARTSELECT ON
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:20:00 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:20:11 ON 21 APR 2005
               SET SMARTSELECT ON
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:20:13 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:21:06 ON 21 APR 2005
               SET SMARTSELECT ON
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:39:37 ON 21 APR 2005
               E LI/ELS
L7         103105 S E3
L8          62839 S L7 NOT (TIS OR AYS OR MXS OR MNS OR PMS)/CI
L9          62781 S L8 NOT SQL/FA
L10         22539 S L9 AND 1/NC
L11         10103 S L10 NOT CCS/CI
L12         40242 S L9 NOT L10
L13         29499 S L12 NOT CCS/CI

     FILE 'CASREACT' ENTERED AT 13:42:20 ON 21 APR 2005
L14          1134 S L11 AND L2
L15           356 S L13 AND L2

     FILE 'REGISTRY' ENTERED AT 13:42:40 ON 21 APR 2005
L16         63503 S L7 NOT L11,L13
L17           212 S L16 NOT (TIS OR AYS OR MNS OR PMS OR CCS)/CI
L18         63291 S L16 NOT L17
L19          2346 S L18 AND PMS/CI
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L20       60945 S L18 NOT L19

     FILE 'HCAPLUS' ENTERED AT 13:43:35 ON 21 APR 2005

     FILE 'CASREACT' ENTERED AT 13:43:53 ON 21 APR 2005
L21           0 S L17 AND L2
L22           0 S L19 AND L2

     FILE 'REGISTRY' ENTERED AT 13:44:12 ON 21 APR 2005
L23       23198 S L20 AND CCS/CI
L24       37754 S L20 AND (TIS OR AYS OR MNS)/CI

     FILE 'CASREACT' ENTERED AT 13:44:34 ON 21 APR 2005
L25         246 S L23 AND L2

     FILE 'REGISTRY' ENTERED AT 13:44:56 ON 21 APR 2005
L26       30493 S L24 AND TIS/CI
L27        7261 S L24 NOT L26

     FILE 'CASREACT' ENTERED AT 13:45:08 ON 21 APR 2005
L28           0 S L27 AND L2

     FILE 'REGISTRY' ENTERED AT 13:45:20 ON 21 APR 2005
L29       30493 S L26 OR L26
L30       15000 S L29  RAN=(208717-06-0,)
L31       15493 S L29  RAN=(,208717-05-9)

     FILE 'CASREACT' ENTERED AT 13:45:57 ON 21 APR 2005
L32           0 S L30 AND L2
L33           0 S L31 AND L2
L34        1397 S L14 OR L15 OR L25
L35         987 S L34 AND L6
                E CYANATE/CT
L36           0 S E4 AND L35
L37           3 S E5 AND L35
L38           1 S E6 AND L35
L39           0 S E7 AND L35
                E CYAN/CW
L40           3 S E3-E24 AND L35
L41           3 S L37,L38,L40
                E CYAN/FG.RCT
L42           2 S E5 AND L35
                E CYAN/FG.RGT
L43           0 S E5 AND L35
                E CYAN/FG.RXN
L44           2 S E5 AND L35
L45           5 S L41,L42,L44
L46          65 S L35 AND ELECTROPHIL?
L47           2 S L46 AND OXIRAN?
L48           5 S L46 AND ?CYAN?
L49           6 S L47,L48
L50           6 S L49 AND L2
L51           2 S L34 AND (MEUDT A? OR ERBES M? OR FORSTINGER K?)/AU
L52           3 S L2 AND (MEUDT A? OR ERBES M? OR FORSTINGER K?)/AU
L53           2 S L52 AND L34

     FILE 'REGISTRY' ENTERED AT 13:54:52 ON 21 APR 2005
                E OC2/ES
L54      188185 S E3
L55       82477 S L54 AND 1/NC
L56       20855 S L55 AND 1/NR

     FILE 'CASREACT' ENTERED AT 13:55:53 ON 21 APR 2005
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L57          20 S L56 AND L35
L58          20 S L6 AND L57
L59             STR L4
L60             STR L59
L61          13 S L59 SAM SUB=L2
L62         242 S L59 FUL SUB=L2
L63          27 S L60 FUL SUB=L2
                SAV L62 ZINNA677B/A
                SAV L63 ZINNA677C/A
L64         113 S L62,L63 AND L34
L65          79 S L64 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L66          79 S L65 AND 1/NS
L67           1 S L51,L52,L53 AND L66
L68             STR L59
L69         243 S L68 FUL SUB=L2
L70         174 S L6 AND L69
L71          89 S L70 AND L35

     FILE 'HCAPLUS' ENTERED AT 14:02:41 ON 21 APR 2005

     FILE 'REGISTRY' ENTERED AT 14:02:58 ON 21 APR 2005
L72             STR
L73          50 S L72
L74             STR
L75          34 S L74 CSS SAM
L76             SCR 1243
L77          37 S L74 AND L76 CSS SAM
L78             SCR 2127
L79          12 S L74 AND L76 NOT L78 CSS SAM
L80             SCR 2039 OR 2127 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 205
L81           3 S L74 AND L76 NOT L80 CSS SAM
L82             STR L74
L83           3 S L82 AND L74 AND L76 NOT L80 CSS SAM
L84             STR L82
L85             SCR 1993 OR 2004 OR 2021 OR 2026
L86          50 S L84 AND L74 AND L76 NOT (L80 OR L85) CSS SAM
L87          50 S L84 AND L74 AND L76 NOT L85 CSS SAM
L88        2691 S L84 AND L74 AND L76 NOT (L85 OR L80) CSS FUL
                SAV L88 ZINNA677D/A TEMP
L89             STR
L90           4 S L89
L91             STR L89
                E OC2/ES
L92      188185 S E3
L93          50 S L91 SAM SUB=L92
L94           1 S OXIRANE/CN
L95         334 S L92 AND C4H8O2
L96          51 S L95 AND 1/NC
L97           5 S L96 AND OXIRANEETHANOL
L98           3 S L97 NOT (PMS/CI OR 18O)

     FILE 'HCAPLUS' ENTERED AT 14:12:13 ON 21 APR 2005
L99       78142 S L88
L100      19623 S L94,L98
L101      97106 S L99,L100
L102       2643 S L11 AND L101
L103       2165 S L13 AND L101
L104          2 S L17 AND L101
L105         61 S L19 AND L101
L106        908 S L23 AND L101
L107         52 S L27 AND L101
L108         67 S L30 AND L101
L109        161 S L31 AND L101
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L110        3719 S LITHIUM AND L101
L111        1563 S LI AND L101
L112        5353 S L102-L111
L113         721 S L112 AND ?PYRID?
L114         665 S L112 AND HET?/SC,SX
L115        1191 S L113,L114
L116        4162 S L112 NOT L115

     FILE 'REGISTRY' ENTERED AT 14:16:04 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:16:04 ON 21 APR 2005
                SET SMARTSELECT ON
L117         SEL L115 1- RN :   50611 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:16:30 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:16:56 ON 21 APR 2005
L118        4679 S L112 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L119         562 S L118 AND L113
L120         547 S L118 AND L114
L121        3710 S L118 AND L116

     FILE 'REGISTRY' ENTERED AT 14:17:59 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:17:59 ON 21 APR 2005
                SET SMARTSELECT ON
L122         SEL L119 1- RN :   31041 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:18:25 ON 21 APR 2005
L123       31040 S L122

     FILE 'HCAPLUS' ENTERED AT 14:20:32 ON 21 APR 2005
                SET SMARTSELECT ON
L124         SEL L120 1- RN :   32007 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:20:51 ON 21 APR 2005
L125       32007 S L124

     FILE 'HCAPLUS' ENTERED AT 14:23:12 ON 21 APR 2005
                SET SMARTSELECT ON
L126         SEL L121 1- RN :   43471 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 14:24:48 ON 21 APR 2005
L127       43471 S L126
L128       81702 S L123,L125,L127
L129          50 S L72 SAM SUB=L128
L130        3556 S L72 FUL SUB=L128
                SAV L130 TEMP ZINNA677E/A
L131            STR L72
L132         618 S L131 FUL SUB=L130
                SAV L132 ZINNA677F/A
L133        2938 S L130 NOT L132
                SAV L133 ZINNA677G/A

     FILE 'HCAPLUS' ENTERED AT 14:28:53 ON 21 APR 2005
L134          78 S L132 AND L133 AND L118
L135          64 S L132 (L) RACT+NT/RL AND L134
L136          61 S L133 (L) PREP+NT/RL AND L135
L137          52 S L136 AND L88 (L) RACT+NT/RL
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L138          0 S L136 AND L88 (L) CAT+NT/RL
L139          7 S L136 AND (L94 OR L98)(L)(RACT+NT OR CAT)/RL
L140         57 S L137,L139
L141         40 S L140 AND (L11 OR L13 OR L17 OR L19 OR L23 OR L27 OR L30 OR L3
L142          0 S L140 AND (L11 OR L13 OR L17 OR L19 OR L23 OR L27 OR L30 OR L3
L143         28 S L141 AND HET?/SC,SX

     FILE 'REGISTRY' ENTERED AT 14:36:00 ON 21 APR 2005

     FILE 'HCAPLUS' ENTERED AT 14:37:10 ON 21 APR 2005
L144         12 S L141 NOT L143
L145         17 S L140 NOT L141,L143,L144
                SEL DN AN 2 6 9 11
L146          4 S L145 AND E1-E12

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